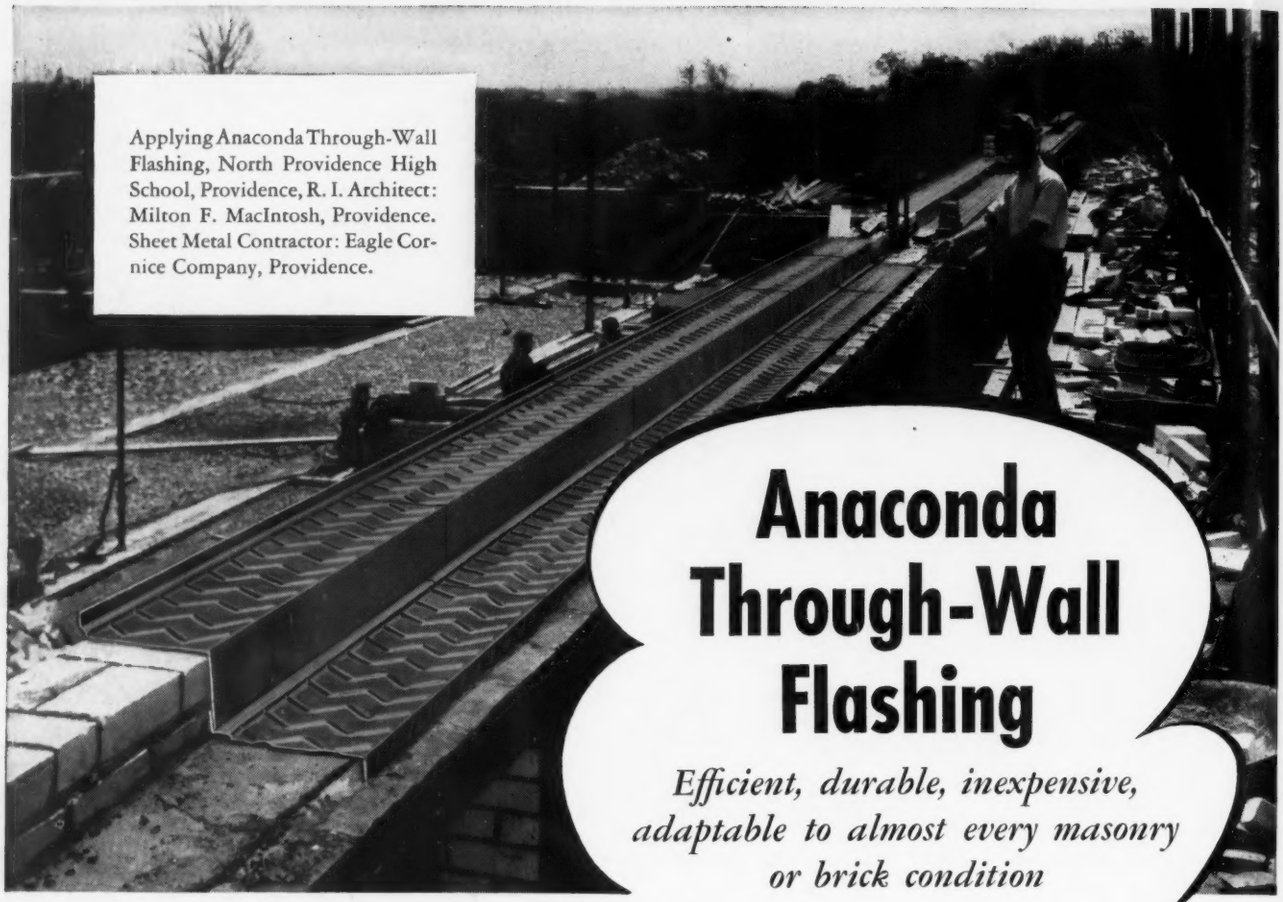
APR 13 1939

PENCIL POINTS

APRIL
1939



Applying Anaconda Through-Wall Flashing, North Providence High School, Providence, R. I. Architect: Milton F. MacIntosh, Providence. Sheet Metal Contractor: Eagle Cornice Company, Providence.

Anaconda Through-Wall Flashing

Efficient, durable, inexpensive, adaptable to almost every masonry or brick condition

Anaconda Through-Wall Flashing* has these worthwhile features:

1. Zig-zag corrugations, 7/32″ high, provide complete mortar bond in all lateral directions.

2. An integral die-stamped dam, also 7/32″ high, gives complete drainage in the desired direction. Flashing drains itself dry on a level bed, reducing possibility of wet walls and heaving by frost.

3. Flat selvage permits neat, sharp bends for counter-flashing or for locking to adjacent sheet metal.

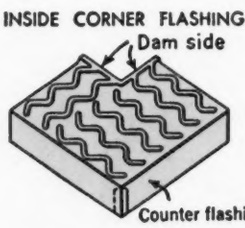
4. Through-Wall Flashing is easily locked endwise by nesting corrugations. Such joints are water-tight, but, if desired, are easily soldered because of adjoining flat surfaces.

5. Tongue of dam is so designed that it may be placed within 1/4″ of face of wall, protecting more of the wet portion of the wall, and still providing ample bed for efficient pointing with mortar.

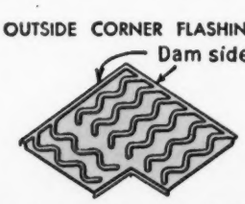
Anaconda Through-Wall Flashing, readily obtainable from Anaconda wholesalers, is made of 16-oz. copper—either plain or lead-coated. It is furnished in 5′ and 8′ lengths, in standard and special widths with various selvages, and corner flashings for 8″ and 12″ walls.

Anaconda Publication C-28 contains complete description of and suggested specification for Anaconda Through-Wall Flashing. 3987

*Patent No. 1,906,674



Standard inside corner flashing unit. Dam on inside; drains out.



Standard outside corner flashing unit. Dam on outside; drains in.

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PENCIL POINTS

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EDITOR

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ASSOCIATE EDITOR

DON GRAF
TECHNICAL EDITOR

The Monograph Series
RUSSELL F. WHITEHEAD
EDITOR

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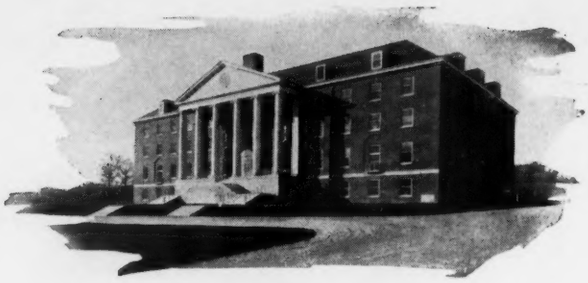

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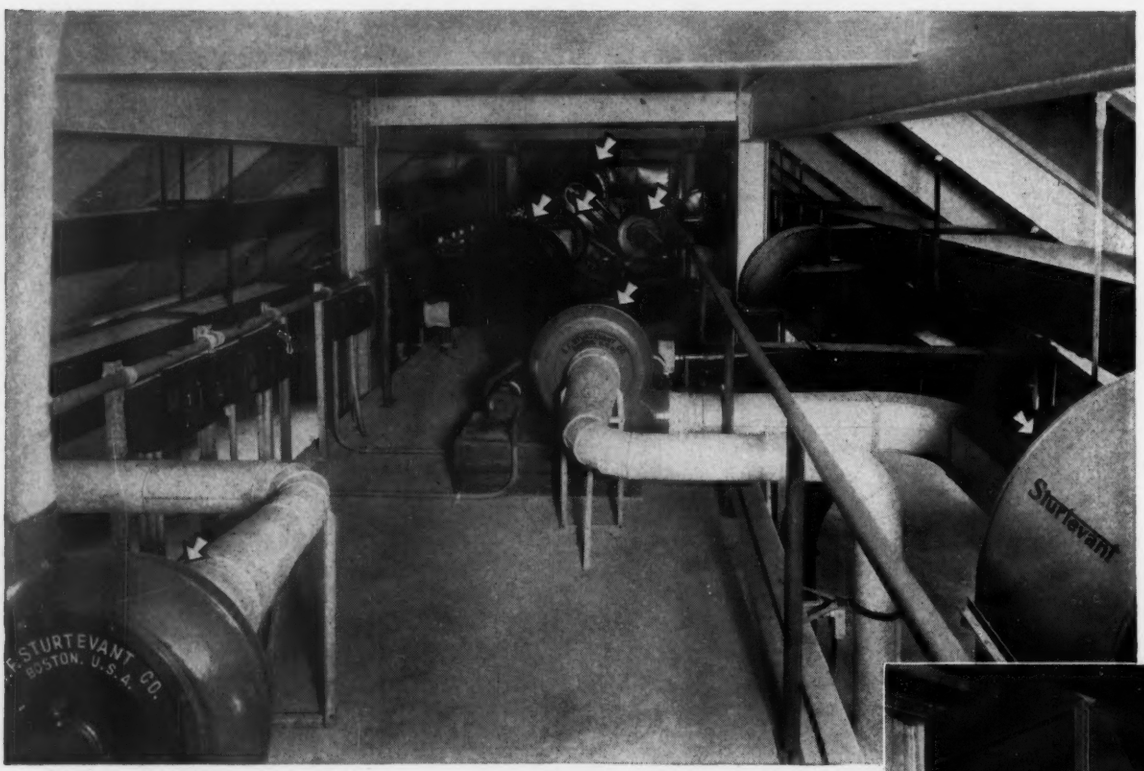

One of the attic platforms in National Institute of Health, Bethesda, Maryland—showing 8 Sturtevant Fans used mainly for hood exhaust service.

One of the main Sturtevant Supply Fans installed in National Institute of Health, Bethesda, Maryland.

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(NORTHERN HARD)

HERE, THERE, THIS & THAT

Rumblings from A Boston Cellar

Although Thompson's Spa may be the best known of Boston's more genteel hasheries, it is an eat-and-run, waitress chinning proposition and has no convocational value, unless you are convocating with the counter-girl. (If I am assault-and-batteried for the above, it was Bob Jigger or Avery Joyce.)

Without a doubt the premier architectural victualing saloon of this city is the "Cyclone Cellar," which is located in the Chamber of Commerce Building; good food, not a cockroach on the property, and room to square-off and talk. Its name derives from an efficient cooling system, the blast therefrom being fit to blow your toupee right into your meat-balls if you don't watch out. A galaxy of architectural proprietors have occasional rendezvous here, and just to show you, I mention Messrs. Strickland, Gray, Hepburn, Ross, Henry, Codman, Beal, and Robinson.

Executive Director F. X. Lane, of the Housing Authority, knows the place, and lately we have had two rare visitors. Ed Luce, whose uptown office and busy days isolate him from his old friends in the financial and coffee-burning district, dropped in to find us fleshing up on "specials" at two bits a set. Lloyd Hendrick, who was surprise Number 2, is now a confirmed Capecodder and very happy to be. He comes to Boston when he has to, but no oftener, and marks another score on the tally against urban life as contrasted with the less hectic and more human landscape of our hinterland.

The Cellar got the final seal of approval when Bill Mason took up with it; for when you see W. N. Mason eating contentedly at any restaurant, you know at once that nothing moves there on more than two legs (except the feline mouser). Jim Norton and John Turner, also, are said to be a little finicky but they lack the piercing, Masonian optic. The great bulk of us, with our tapeworms, merely go in for palatable quantity, at cut rates, and a place to talk.

On March 1, students of the Boston Architectural Club held a second annual "Open House," coincident with a joint exhibition of their work with that of girls from the Lowthorpe School of Landscape Architecture, the Cambridge School of Architecture and Landscape Architecture, the Museum School of Fine Arts, the Child-Walker School of Design, the Sacker School, and the Architectural School of M.I.T. (who says we haven't got schools?)

About eighty young people partook of refreshments and dancing. The hostesses were Mrs. H. Daland Chandler, Mrs. Augustus N. Rantoul, and Mrs. Harold D. Walker.

Unless a fellow is connected with a fancy Newbury Street office he isn't within striking distance of the bulk of this city's exhibition galleries. Almost the only downtown display space is at the Architectural Club. From March 29 to April 1 the 35 MM Club of Boston showed its photographs there, and April 8-15 the Eastern Art Association will exhibit.

On March 8, the Architectural League of Boston held its regular monthly meeting, wherein it was recorded that the wage-scale for local housing projects had been settled.

FAECT had defended the employe's side of the argument, and President E. S. Parker of that organization was present to make a few remarks. Later on there arose a great tumult, and the

(Continued on page 22)

BUILT TO MODERN STANDARDS
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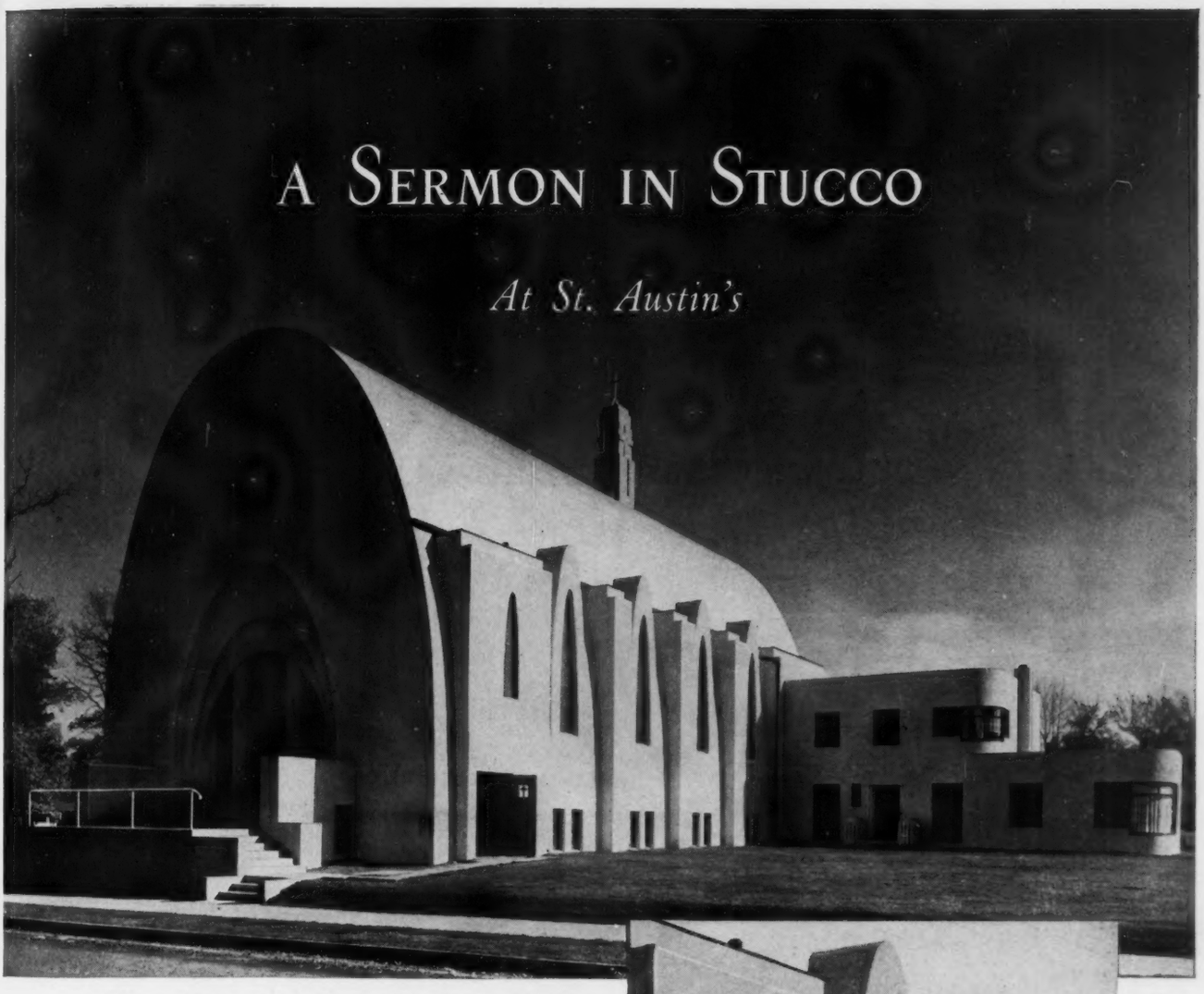
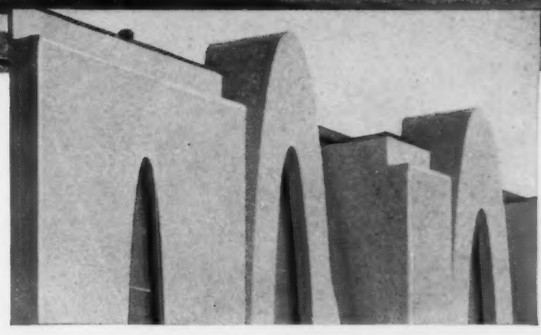
A Sermon in Stucco

At St. Austin's





● Stucco helps to beautify St. Austin's Church and Parish House in Minneapolis. Atlas White was used in the stucco finish coat. Two under coats were portland cement stucco over expanded metal lath attached to frame construction. Architects—Bard and Vanderbilt, Minneapolis. Contractor—Herman Jeub.

A CHURCH can be modern in appearance and still retain its churchly beauty and dignity. That is the sermon preached by the picture of St. Austin's Church and Parish House in Minneapolis.

The simplicity of design, the sharp, clean-cut curved and straight lines that help to give the modern touch, are easily attained with the aid of stucco. In this structure, as in many others today, the stucco finish is made with Atlas White portland cement.

For the next job on your board, whether a new structure or an old one to be modernized, consider Atlas White stucco. Its initial cost is always moderate. It is permanent and lastingly attractive. It discourages maintenance costs. Universal Atlas Cement Co. (United States Steel Corporation Subsidiary) Chrysler Building, New York City.

A FACTORY-PREPARED STUCCO IS PREFERABLE

PP-S-3

STUCCO MADE WITH **Atlas White** PORTLAND CEMENT

(Continued from page 20)

cry of. "We want Reid, we want Reid." Whereat the Editor of PENCIL POINTS stepped out from behind a false beard (labeled "Slummer No. 5") and apprised us of his presence in the audience. Thus set upon he said that, by virtue of many contacts all about, he regarded the state of mind yclept Boston as unique, architecturally. And it is assuredly true that you can't go to the Old Howard or wear a union suit but everyone finds out about it; one man will be an architect or a draftsman, with equal grace, as his fortune ordains; another will take fifty years to discover that he won't have any dough to leave his children if he doesn't close up pronto; an ambitious young man will toady to the big shots, and it's all over town; if a draftsman reads the New Republic every boss knows it; you can't call your soul your own.

The 40 hour week wage-scale as finally cast has the following rates:

Occupation or Classification	Minimum Wage Rate per Wk.
Chief Draftsman	$80.00
Designer—Architectural, Structural, Mechanical	65.00
Specification Writer	65.00
Senior Draftsman—Architectural, Structural, Mechanical	50.00
Junior Draftsman—Architectural, Structural, Mechanical	35.00
Apprentice Draftsman	20.00

The overtime rate per hour is "not less than time and one-half."

Professor Cecil C. Briggs of Columbia University has been appointed supervisor of architectural courses at the Pratt Institute School of Fine and Applied Arts, Brooklyn, N. Y., effective July 1, succeeding Lester B. Pope

We had the blizzard of the season, March 12-13, which wrecked the force of many spring-inspired communications to the *Transcript*, and other papers.

But it is a fact that sketching sap is already running; that Spaulding-Moss and B. L. Makepeace are about to garner a fortune by reason of the incurable recurrence of picture-painters'-itch. The writer is in receipt of one lament inspired by the failure of that handy device, the composition isolater. It goes something like this:

Peeping through the knot-hole in Father's wooden leg
I could frame a composition very neatly,
But Father wouldn't stand in places where the view was good,
So my sketching went to pieces quite completely.

For years I sighted patiently wherever he would stop
But I'll never make the effort any more,
For you get almighty sick of such a subject
As that gosh-danged face on the barroom floor.

My advice, in this instance, would be to stick to plumbing. KEACH

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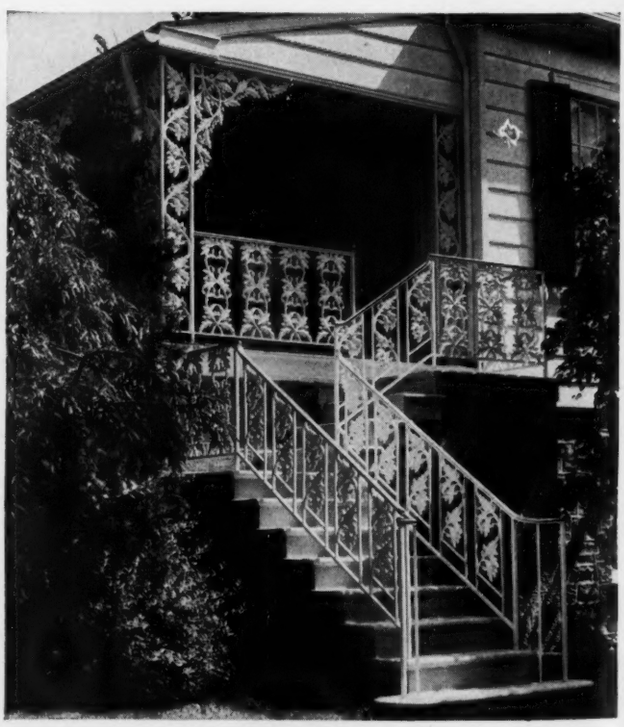

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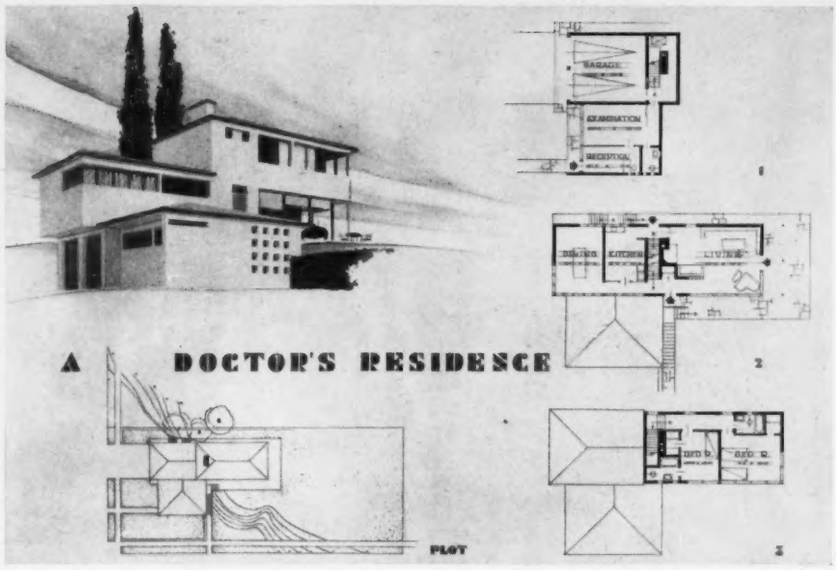
Museum of Modern Art To Open New Building

The Museum of Modern Art announces that it will open its new building on West 53rd Street, New York, to the public on Wednesday, May 10, with a Tenth Anniversary Exhibition. The Trustees of the Museum will hold a formal reception for members and invited guests on Tuesday evening, May 9, at ten o'clock. The occasion will not only be in the nature of a house-warming for the new home of the Museum, but also will commemorate the founding of the Museum, in June, 1929.

The Tenth Anniversary Exhibition will be the Museum's offering to World's Fair visitors and will remain on view from May 10 to October 1. The exhibition will represent many of the various fields of modern art, with which the Museum has been concerned in the ten years of its existence, and will include painting, sculpture, architecture, graphic art, popular or folk art, industrial design, commercial art, photography, and moving pictures.

Wallace K. Harrison has been elected a member of the Board of Trustees of The Museum of Modern Art, for a period ending December 31, 1940, as announced by Thomas D. Mabry, Jr., who is the Secretary of the Museum.



Harrison is a member of the architectural firm of Harrison and Fouilhoux, architects of Rockefeller Center and of the Theme Building of the New York World's Fair 1939, and is Architect Member of the Art Commission of the City of New York for the term 1938-1940. He is also a member of American Institute of Architects, Architectural League, Beaux Arts Institute, Beaux Arts Society, and National Academy of Design.

This design by Helmut Riehl, of South Orange, N. J., was selected as the best among thirty-five by students in architecture at Cooper Union under the supervision of Esmond Shaw, Assistant Director of the Art School. This combination office and residence for a New York suburban doctor can be constructed at a cost of about $11,500 with a cubic content of 28,000 feet

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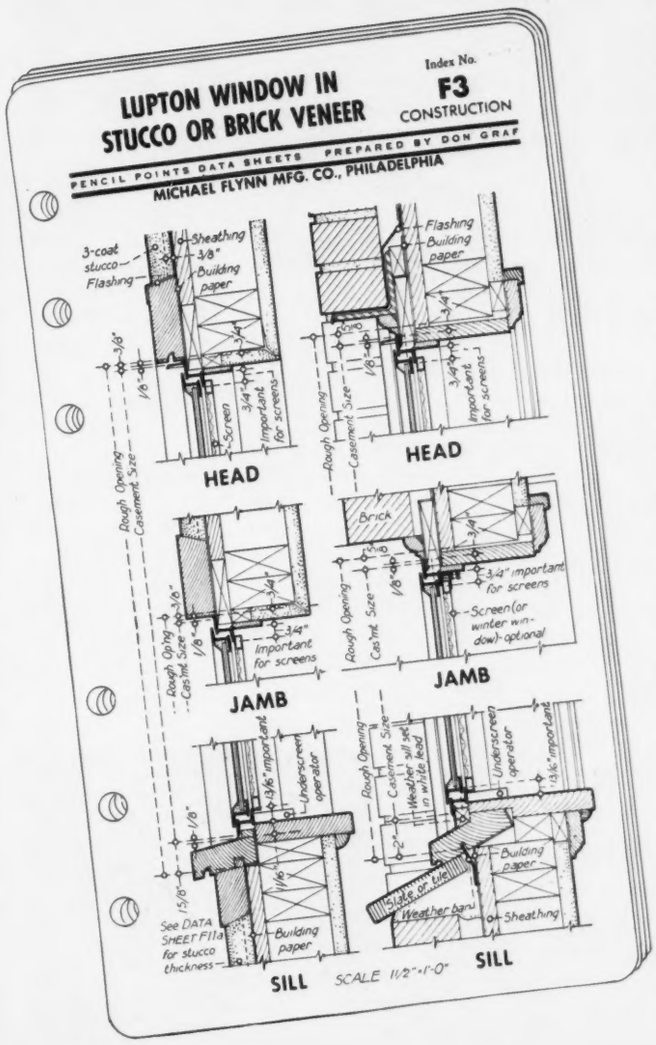

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Potomac Patter

AN OBSERVATION: Sprig hab cub. So have the cherry blossoms and the rains; the glorious 4:00 P. M. rains, which all Government employees can anticipate with certainty. Bright mornings, sweet-smelling warm noons, and sure as shooting just about 4 o'clock Washington's guardian angels wash their wings and shake them out all over town. Many people object to this public bath, but not us. For we are situated not very far from the Mellon Art Gallery now under construction, and if those dropping silver globules do one thing that could please an architect, it is the effect produced by the reaction of the rain on the Tennessee Pink marble now slowly enveloping the steel skeleton of John Russell Pope's "Pantheon with wings." As an observer, one can see even now the beautiful effect that this building will make in the picture of "after the rain." From out of the silvered grass rise deep pinks and purples of the mass silhouetted against a light blue sky with a rainbow arching out of nowhere and resting on the roof of the east wing. A delightful conception which in about two years may become a reality. Watch for it!

A CONTRIBUTION: Here's one for Hubert Ripley, our eupeptic friend, and all other architects inclined towards the consumption of beer and a bite. Contributed by Fred C. Greve, the stone expert with Procurement, it reads as follows:

RINC-TUM-DITTI
OR
A SPANISH RAREBIT

Grind up one onion about the size of a billiard ball. Cook ground onion in an equal size lump of butter in double boiler or chafing dish. Grind up 1 pound of medium sharp cheese and add to the onion boiled in butter. Take one pint of tomato juice, *½ teaspoonful English Mustard, one egg, a dash of Cayenne pepper, a pinch of salt and mix well. Stir this mixture in with the boiling cheese until the paste runs smooth. Serve hot over crackers or toast, and six fellows can lick the dish clean.*

This delectable concoction has been in Fred's family for 35 years and his physical being doesn't seem to have suffered by its consumption, considering his age and looks. Would that all architects at least attain the same.

A DISCOVERY! A new field for architects. For many years we have been turning the pages of architectural magazines and the pages containing advertisements of building materials were turned perhaps a wee bit faster than the others. No doubt due to the lack of interest in the ad layout; since the material itself being new or contemporary, or even old but useful, is always interesting. Not very much was done to make the advertising page arresting to the reader—the architect—and this phase of advertising did not progress as fast as certain other types of ads. So we keep on turning the pages. But the Federal Architects, having perhaps more time to study their magazines than others, realized that something could and should be done about the ads they must plough through in order to find the concluding paragraphs of readable articles. The idea that architects may take steps to express themselves concerning the ads they must read was presented to the Association of Federal Architects by Architect Edwin B. Morris of Procurement, Editor of the Association's magazine, "The Federal Architect." The possibilities in a movement to raise the standards of building material ads were pointed out by Mr. Morris via the following method:

There should be an exhibition of Advertising pages as composed at present. Simultaneously, there should be exhibited advertising pages as designed by architects in competition, with awards to those presenting winning conceptions of the form advertising

(Continued on page 28)

NO PLACE FOR
PANTYWAISTS
"Pantywaists" have no place on polo teams, and frail cold storage doors are taboo in modern refrigerated plants.
To resist the hard abuse of men, trucks, and temperature cold storage doors must be rugged. JAMISON-BUILT DOORS are notably rugged. It's intentional. They're *designed* with extra strength where it's needed. *Materials* are selected for wear-resisting durability. Construction is by workmen to whom JAMISON ruggedness is tradition. Even the soft but tough JAMISON resilient pure rubber gasket outlasts old types many times.
Wherever cold storage doors are used, JAMISON-BUILT DOORS prove the value of ruggedness. Send for free bulletin to JAMISON COLD STORAGE DOOR CO., Hagerstown, Md., or to branches in all principal cities.
Jamison, Stevenson & Victor Doors
JAMISON BUILT DOORS
Stevenson Vestibule "Door That Cannot Stand Open"
(See our catalog in Sweet's Catalog File)

MAJESTIC
Building
NECESSITIES
MAJESTIC
Circulator Fireplace
Everyone wants a beautiful fireplace—but today, real heating efficiency is also demanded. The Majestic Circulator Fireplace answers this demand! It radiates and circulates heat like a modern furnace—to every corner of the room—without a trace of smoke! Makes use of heat that is wasted up the chimney of the ordinary fireplace, providing more warmth with less fuel. Is adaptable to any type of fireplace exterior. Provides an accurate, permanent all steel form for the masonry, making installation remarkably simple and economical. Write today for catalog of Majestic Building Products.
The MAJESTIC Company
719 ERIE STREET, HUNTINGTON, INDIANA

YOU CAN'T BE THE *First*
YOU DON'T WANT TO BE THE *Last*

One of Niagara Hudson's Five Star Model Homes

The Wright Building, Toronto is Nofuze protected

to make fuseless circuit protection standard

Westinghouse Nofuze equipment protects electrical circuits by means of a bi-metal tripping unit. It automatically disconnects the circuit before overload or short circuit can do harm. And it will function year after year — as long as the building stands — without replacing a thing. Service is restored by flipping the switch — that's all. It's safe, convenient . . . the modern way to protect electrical circuits.

Nofuze equipment now protects over 3,000,000 electrical circuits. Typical installations are in:

Niagara Hudson's Five Star Model Homes
Wright Building, Toronto
Los Angeles Athletic Club
Arnold Constable's newest store,
and in thousands of homes, apartments,
office buildings, factories.

Suggested specifications for homes and other buildings are in A. I. A. File 131, Architects' and Engineers' Data Book. Make a note to look into Nofuze protection before writing electrical specifications.

Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa.

J-60297

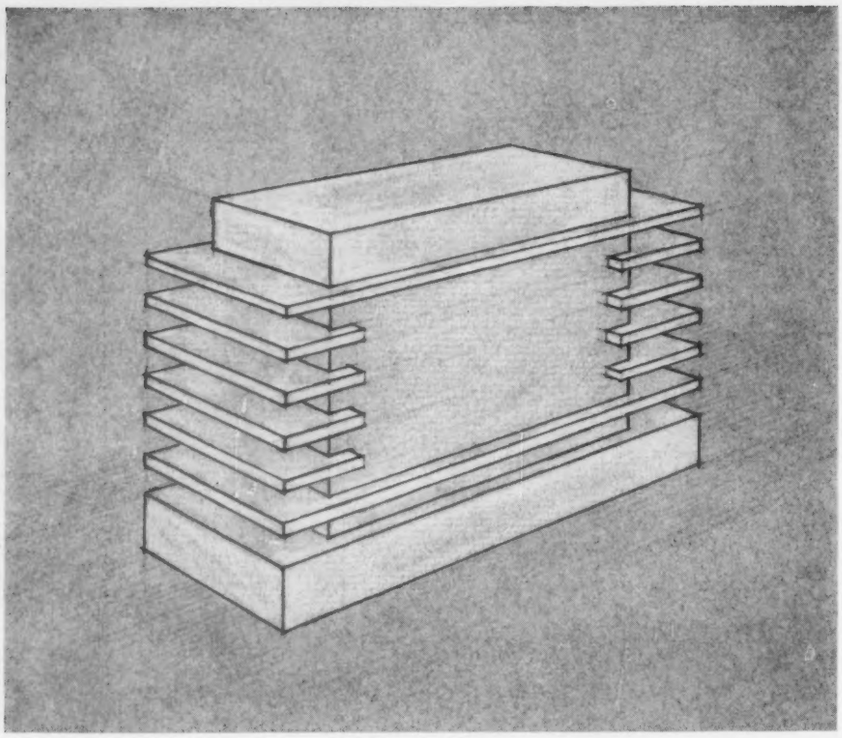
Nofuze Multi-Breakers for homes

Nofuze power panelboards for industrial plants

Nofuze lighting panelboards for commercial buildings

Westinghouse Nofuze Protection

WESTINGHOUSE ELECTRIC



Stainless steel in thin sheet form, backed by a tough non-metallic material, is specified by Lawrence K. Morris, of Watervliet, New York, for execution of this unusual design for a cemetery memorial. The memorial would be two feet in height, 30 inches wide and 8 inches deep. This material, made for table and counter tops, etc., can be applied to concrete, plaster, wood, and fibreboard

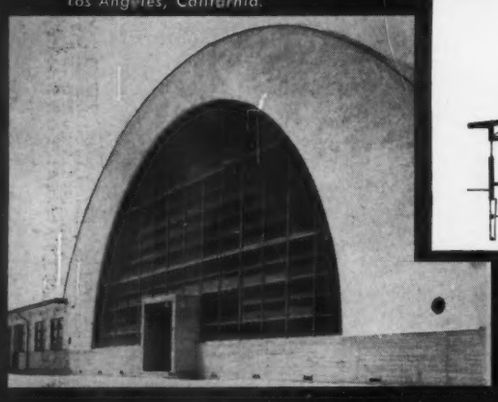
(Continued from page 26)

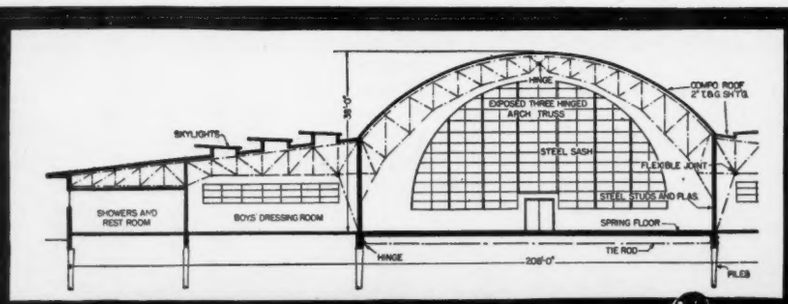
of building materials should take. Conclusions may be drawn by comparison. The exhibition is based on the realization by architects and engineers that building construction is requiring an intelligent familiarity with a rapidly growing list of materials and that, year by year, more time must be spent in their study.

The competition, the brainchild of yours truly, was based on the suspicion that some architects know something about advertising appeal and composition: let us uncover the lucky fellows. And so we did. Thirty contestants and the results were remarkable. Prizewinner Joseph W. Rogers of Procurement and Second Prizewinner Alan B. Jacobs of the Bureau of Yards and Docks contributed layouts that the advertising men dream about but cannot put over because the client has other ideas. Remember, Architects!

The exhibition was held last month at the National Press Club Auditorium (appropriate place, what?) and both luncheon and dinner affairs were arranged for those attending. The guest speakers at the dinner were Representative Bruce Barton of New York and Representative Kent E. Keller of Illinois. Both were well received because they "belonged." RED

Gymnasium of the Susan Dorsey High School, Los Angeles, California.





Ink translates ideas into steel, concrete and glass.

HIGGINS AMERICAN DRAWING INKS STAND AT THE TOP OF THEIR CLASS

In school and out, teachers, students, architects, engineers, designers, artists—all whose ideas set down in ink contribute to the progress, purpose and beauty of life—choose Higgins first. Higgins Waterproof Black Drawing Ink flows evenly, freely. The resulting uniformity and clarity of line loses nothing in the blue-print and brings delight to the craftsman heart of every photo-engraver and printer. Neither weather, constant exposure to the light nor handling will ever fade the permanent, jet-black quality of this more than half century famous ink.

In addition to the waterproof and soluble blacks, Higgins American Drawing Inks come in 17 lucid waterproof colors, white and neutral tint. Specify Higgins on your next order—and ask your dealer for one of the new Higgins Color Wheels showing Higgins Inks actually applied on drawing paper. Send to us, today, for your free copy of the new and interesting edition of Higgins Techniques.

HIGGINS CHAS. M. HIGGINS & CO., INC. • 271 NINTH STREET, BROOKLYN, N. Y.

This model of cardboard and balsa wood was made by Aldo Bottazzi, of Corona, L. I., from his own design for a "Hotel World's Fair." It is 3 feet in height and gaily colored. Model making is Bottazzi's avocation

Frank M. Snyder

The death last month of Frank M. Snyder, New York Architect whose "Building Details" has been a standard reference book for a generation of Architects and Draftsmen, deprived the profession of a respected member who is affectionately remembered by his associates. He was 72 years old and had worked in the leading architectural offices of New York, Chicago, and St. Louis the last half-century.

From Mr. Holske and Mr. Adams, both connected with the office of McKim, Mead & White, we learn that Mr. Snyder won the friendship of the men in the office when he was employed there in the Nineties and again in the late Twenties. He is recalled by another former associate, Franklin H. Keese, Architect, who worked with him around 1912 in the office of Cass Gilbert, as a kindly, even-tempered companion who made a hobby of his thorough study of building details. Mr. Snyder also worked in the offices of Cram & Goodhue and of John Russell Pope, and in addition on the Chicago World's Fair of 1893 before coming to New York.

"Snyder was quite experienced and able in his line, but it is difficult to talk about him because he was so quiet, almost diffident," Mr. Holske explained. "He was an excellent draftsman, as his book shows, and among the jobs he worked on in this office were two of the laboratory extensions at Columbia University, which he handled entirely; and the Hall Laboratory at Wesleyan University, for which he made all the drawings and details."

"In addition, he was always very nice to the younger men," Mr. Adams interposed, "even to such a whippersnapper as I was—probably a nuisance to everyone! But Snyder always found time for us and we all had great respect for him and for his ability."

Elevated Highways

Elevated highways would relieve congestion and save the public millions of dollars by reducing accidents, fuel consumption, and travel time were the conclusions reached by a special committee appointed to study the construction of elevated highways and which reported before the convention of the American Road Builders' Association, recently in San Francisco.

The report enumerated various highways already built and analyzed the results achieved from them; it also recited the plans for additional elevated highways already being drawn.

BACKED BY NATION-WIDE

Sales Installation

SERVICE

The "OVERHEAD DOOR"

THE DOOR WITH THE

MIRACLE WEDGE

Blends with every type of construction

—ADAPTABLE—

HOME GARAGE
FACTORIES
WAREHOUSES
GREASING STATIONS
FIRE STATIONS
BOAT WELLS
SIMILAR BUILDINGS

OVERHEAD DOOR CORPORATION

HARTFORD CITY, INDIANA, U. S. A.

CLIP THIS COUPON and MAIL NOW

MADE IN ANY SIZE AND FOR ANY OPENING, ELECTRIC OR HAND OPERATION

Please send me literature and full information regarding your product. I am interested in doors for the particular purpose as checked.

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PUBLIC GARAGE
WAREHOUSE
GREASING STATION
WOOD DOORS
STEEL DOORS
FACTORY DOORS
OTHER BUILDINGS
ELECTRIC OPERATORS
P-P-439

Name .....

Address .....

City ..... State .....

Mail to: OVERHEAD DOOR CORPORATION, Hartford City, Indiana, U. S. A.

THE PERFECT FOUNDATION FOR MODERN DESIGN

...Armstrong's Linoleum — the modern flooring

Armstrong's Linoleum, in turquoise and cadet blue, completes the modern touch in this showroom of Kensington, Inc., Rockefeller Center, New York.

FOR a commercial *or* residential job where modern design is the keynote, Armstrong's Linoleum is the modern flooring.

You have more than 200 patterns and five thicknesses from which to choose. Special floor designs that will impart individuality are readily produced by combining plain colors of Armstrong's Linoleum. Practically any design that can be created on a drawing board can be executed in linoleum.

And there is never a doubt about the wearing quality of Armstrong's Linoleum. The rich colors run through the full thickness of the resilient inlaid composition. Neither scuffing feet nor scraping furniture can wear them off.

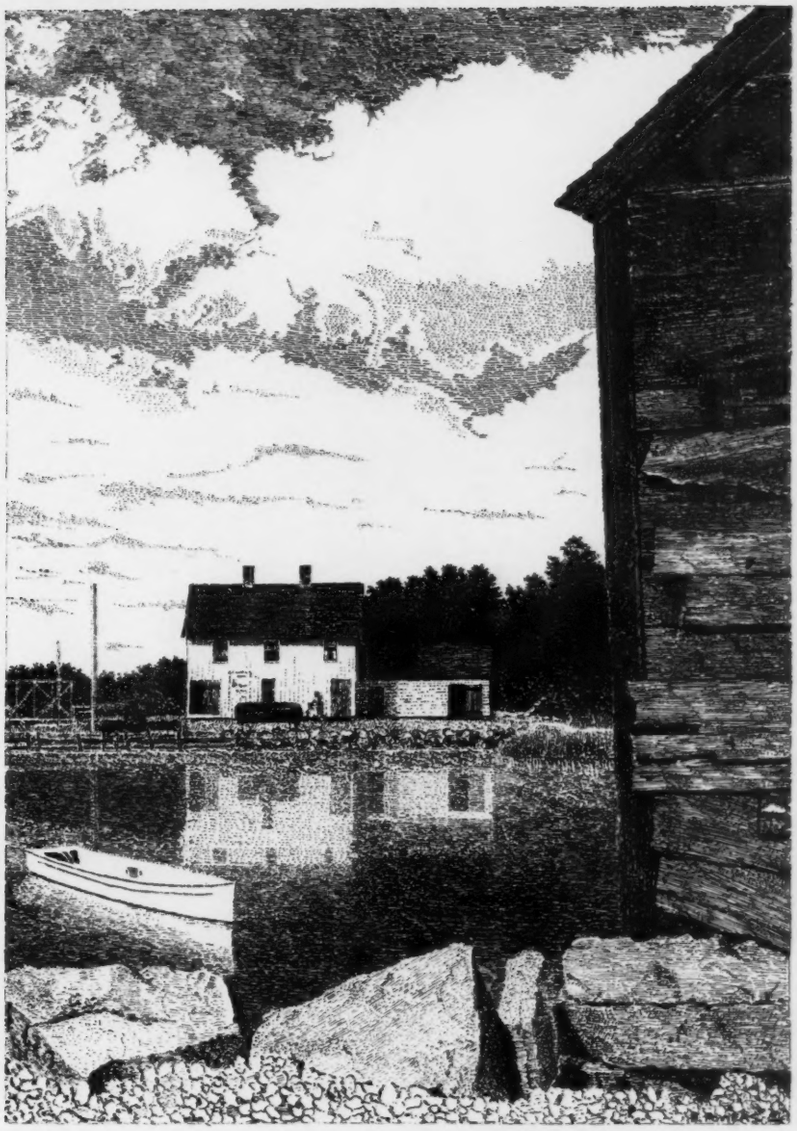
Linoleum is easy to keep clean. There are no open cracks to collect dirt. Daily sweeping and occasional washing and waxing keep it fresh and beautiful for years.

Armstrong's Linoleum can be laid quickly over almost any type of subfloor. For styles of design other than the modern, there are suitable patterns, too. Armstrong's Architectural Service Bureau is able to give you unbiased suggestions on the floor best suited to your plans. For full information, see *Sweet's*, or write for color-illustrated "Better Floors." Armstrong Cork Company, Building Materials Division, 1206 State Street, Lancaster, Pennsylvania.

RUBBER TILE • LINOTILE (OIL-BONDED) • ASPHALT TILE

Armstrong's LINOLEUM and RESILIENT, NON-CERAMIC TILES

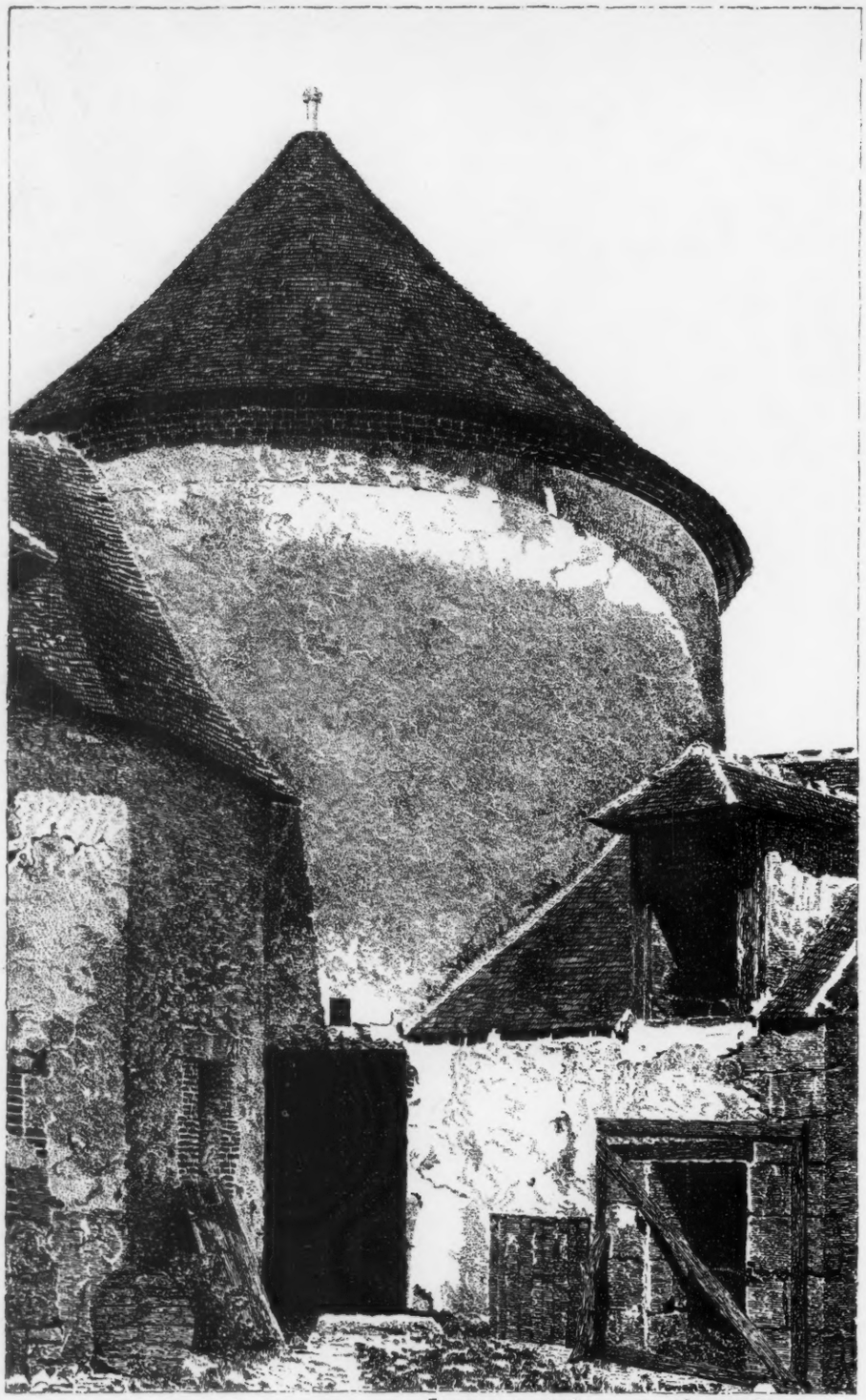
CORK TILE • LINOWALL • ACOUSTICAL CEILINGS



Old Lyme, Conn.

FROM A DRAWING BY ELINOR POWERS

The mastery of pen-and-ink technique that has long distinguished the drawings of Richard Powers, Architect, formerly of Boston but now of Chicago, is by way of being handed down to his daughter, Elinor, if the drawings we recently had the pleasure of examining are any indication. We have reproduced two of them, here and overleaf, at the exact size at which they were drawn



FROM A DRAWING BY ELINOR POWERS

The convincing rendering of textures in pen-and-ink has challenged the ingenuity of many a young architectural draftsman. In the example above, Miss Powers, inspired perhaps by her father's memorable accomplishments in this field, has done an admirable job of expressing old wood and stone and brick and stucco, at the same time controlling the composition of the whole

THE APPROACH TO PRACTICE

WITH AN EYE TO MAKING IT BUSINESSLIKE

BY ROYAL BARRY WILLS

EDITOR'S NOTE: *This article is the opening chapter of a forthcoming book written by Royal Barry Wills, with the collaboration of Leon Keach, in which the business side of the architect's practice will be thoroughly analyzed and discussed, with particular reference to the conduct of the small and medium-sized establishment. The set-up of an office, the securing of clients, the making of contracts, dealings with clients during design and construction, correspondence, bookkeeping, analysis and interpretation of overhead, budgeting, cost accounting, and dealing with business hazards are some of the many items that will be covered in the book. Several valuable chapters will appear in* PENCIL POINTS *during the coming months and the completed book will be published in the fall. The author is well known as one who has from small beginnings built up a substantial practice by the application of common sense in a business way, as well as by his skill as a designer. He is now about to make the fruits of his experience available to our readers.*

THE earlier practice of architecture in this country was very frequently shaped by men whose independent wealth allowed them to indulge in a fashionable occupation, without much regard for profit. Their highly inefficient technic in office management and the production of work first engendered many of the deplorable habits that harrow the less affluent practitioners of today.

This does not need to be. Admittedly, there is a perpetual difficulty in the mutual adjustment of creative effort and profitable business, but to produce far better results than usually obtain, a miraculous panacea is wholly unnecessary. The functioning and monetary returns of your average office can be immeasurably improved by an orderly consideration of the problems confronting a modern architect, many of which we will hereafter endeavor to present and evaluate—but chiefly to solve, by the empiricism of actual practice and successful experiment.

Any person of normal intelligence, possessing the will to do so, can learn the mechanics of a business or an art. This does not assure the achievement of great financial or artistic aptitude, or even the ability to develop anything more than a pleasant avocation in many a field of endeavor—but, strange to say, it is good for a living in Architecture.

One of the peculiarities of the profession is that its mingled practical and æsthetic composition is but vaguely understood by most clients. You would have to be something more than a freight-car painter to satisfy the purchaser of a portrait, but a man can fall rather short of being an architect, in the true sense, and produce a block of stores that will delight many an owner. The answer lies in the owner's lack of a critical faculty and in his not having any special knowledge of architectural methods, refinements, or materials. He will have an idea on plan and an eye to the prevailing mode in decoration, both of which may be poor but relatively easy of achievement to the extent of his appreciation.

It may have taken several years of experience, on the architect's part, to compass these minimum requirements of his calling, but he need never have had a flair for them, an inherent gift for design, or any other inward attribute except common-sense to a degree, and perseverance.

I do not subscribe to such an implied deficiency in professional equipment, regarding it as an unfortunate state of affairs to say the least, but it is none the less a fact. The inference I would draw is that you can make a living as an architect by a knowledge of its practical and business mechanics. This book endeavors to present a concise and adequate description of the all important business side.

An understanding of economical, sound, weathertight construction is the fruit of long apprenticeship; there is an army of salesmen begging to give you a comprehensive knowledge of materials; but nobody expounds the fundamentals of job-getting or efficient office maintenance. By great good luck the archaic systems prevalent are usually kept under the

architect's hat, which prevents their dissemination.

Years ago, when the practice of architecture went into its professional phase, it created the architect as an unbiased defender of his client's interests, a *rôle* which is still one of his more important obligations. Simultaneously it made him a priest of arty mysteries and a defender of traditional dogma, to the detriment of progressiveness and the cult of commonsense.

Now the changing world has banished ironclad traditionalism and introduced, to the architect, a host of competitors in the realm of pure and impure business. Because of these *sacro-sanct* decades of defenseless immunity his back is more nearly to the wall than he realizes, but he has the best of arguments for his continued existence will he but galvanize himself into an intelligent aggressiveness. Architecture has become, for all practical purposes, a business which retains professional supervision as its inheritance from earlier years, and the modern client's confidence in the architect is the greater for knowing him to be a businesslike individual.

There is no early test for future architectural preeminence, though there is every reason to believe that the average youngster may be directed towards gaining an adequate and pleasant livelihood through its practice. The contributing influences are an early bent for delineation, a family tradition, or the belief that it is a genteel and not too vigorous occupation for an artistic man of means The last mentioned status is becoming increasingly obsolete and unsafe.

Academic years were once devoted to the hoary formalities of plan and elevation, interlarded with a brief experience at practical drafting and possibly a lecture course or two on engineering phases of the building industry. In their present state of flux, the schools are more conscious of the influence of modern materials on design, and functionalism is generally rampant. Nevertheless this progressive training is so far in advance of the actual state of affairs in most offices that for some years young graduates will still be faced, when they spread their wings as draftsmen, with as difficult a transition as ever obtained.

The first year determines the general direction of a man's usefulness to an employer. A talent for design will swing him one way, or the lack of it to another and more varied fate, which leads slowly towards some of the so-called "practical" subdivisions in an office. Being green in such matters, the tag he will wear is longer delayed in the titling.

The rate of mental absorption, as it concerns office details, varies with the individual, but unless he is stepping into his father's shoes or is wholly incapable of humility, all thoughts of hanging a shingle will lie fallow a few years. Their future cultivation may not be a certainty, as we shall see.

Among the reasons we have "design." This is unquestionably the choicest of architectural subdivisions, adequate designers being less commonly found than most office specialists, excepting head-draftsmen. Their gift is the expression of an inventiveness seasoned with good taste, which may well be an end in itself, limitless in its artistic satisfactions and having no close connection with profit-making as a primary aim. A man so equipped may find himself content to be fed problems of plan and elevation, freed from the distracting work of job-getting and office management, for all of which he has no liking. Moreover, it may seem probable that he could not, on his own, revel in the larger questions of design or enjoy contact with fine work and rich materials. If he is good enough there is a place for him, when there is a place for anybody; consequently many of our best designers never open offices, unless it be that they are invited to function in their proper capacity as members of a firm.

Working drawings and detailing will be the first concern of those without the aptitude for design, and later, superintending, specification writing, or office management. Size is the usual criterion by which one may deduce an office's tendency to make specialists of its workers, and it is patent that the more rounded experience of a small establishment fits better the needs of a budding architect, because the one man office is the first step of a normal evolution and its utter simplicity throws a great variety of responsibilities on its one man.

His two absolute requirements are a rounded practical training and a specialized business capability. Design talent is less vital, for, as has been said, its better known clichés will satisfy most clients. Mind you once again, these are but stark and "minimum" realities, without much regard for ethics or æsthetics.

Thus, the mantle of this rudimentary architect is seen best to fit the office "practical-man," if he can but surmount the problem of job-getting. The fact that many such men have never blossomed forth— notably those very responsible retainers, the head-draftsmen —leads inescapably to the conclusion that they are lacking the will or the knowledge to circumvent this last barrier.

Before training our microscope on the

specific conformations of the obstacle, it might be well to take a bird's-eye view of the whole terrain, as a modern mountaineer studies his coming attack from an aeroplane.

First of all, you have the choice of setting up alone or in partnership. Remember that alliance with another is to be more carefully reasoned than your marriage, for this is not an emotional experience but a very unsentimental and selfish matter, whose end is the happy cultivation of a practice and shoes for the baby.

Next, there is the location of an office, the center of your production problems. Financial limitations may relegate you to the attic—or it may be a tasty affair, with a glass brick or two, somewhere in town; there are pros and cons in either case.

Then, when you have the mill there must be grist, and in a complex world the average man has got to obtain that grist by the unremitting application of legitimate methods for attracting business. Verily a crucial point, but with divers solutions, some of which ought to fit your particular makeup. Select them and force yourself to the test, else the millstones may never turn.

A prospect must be disentangled from the mass of your fellow men and set forth as a special entity; an individual who has somewhere in the front or the back of his head the desire and the means to build. He may come seeking your advice or you may go to him, but in either event you have a case to prove, because few people are architect-wise through contact with the profession. There is a persistent belief that men of your calling are a bit of a luxury in the smaller problems of building construction, and it all derives from the earlier aloofness and a still undeveloped public education in architectural matters. So the immediate problem is to justify your existence and get a reasonable fee for services to be rendered, which is nothing more or less than the vacuum-cleaner salesman's duty towards his inanimate machine, only he thinks of the process as breaking down sales resistance. And he does it by rote, on the basis of the company's instruction book, with a few personal flourishes added as he warms to his task. This studied spiel is obviously meant to anticipate any and all questions and extol the machine's virtues until it appears as a necessity; it mechanizes the salesman's attack and thereby reduces the chances of error in the continuous press of battle.

Now architects have their services to sell, and a part to act which may be above their normal expressiveness or loquacity; particularly when the prospect says, "Why are architects?," and waits stonily for an answer. Is it not sensibly forehanded to be ready and letter-perfect with that answer? You come honestly by one, and its essence is practically unchanged in many and varied situations.

Up to this time you will have made three major decisions and won two engagements, for we may assume first that a prospect has been found, and, secondly, convinced that you are worth your salt. Sketches are undertaken, involving creative thought and time on your part. Suppose the work stops abruptly there, for some reason, perhaps because the Owner has found a ducky speculative house with a Norman tower, to be had for a song. Are you left holding the bag? Possibly, depending on the circumstances of your arrangements with this erstwhile client, but you have usually committed a tactical error if such is the case. Every architect should know how to get reasonable compensation for his efforts, whether or not the work is carried to completion, as will be developed later.

With sketches accepted you may not even yet permit yourself to light a ten-cent cigar and get hazy in blissful thoughts of plan and elevation. For right at this juncture comes the architecturally unpleasant but necessary business of pinning your client down to a positive declaration in contract form. That gentleman may be facing the major expenditure of his life, and every instinct makes him view the document with suspicion. Here, then, is a tense moment and the clear cut demand for a sales psychology which allays his fears, such as I have seen practiced by a prominent realtor of my acquaintance. Habitually, he uses the contract's many and irrevocable details as so many selling points, making them appear individually advantageous to the prospect, and in the nature of an assurance that he is getting his money's worth. This from the mouth of an architect has the added advantage of spreading an aura of business acumen, which the client too often fails to associate with men of the profession, setting them down as merely arty and temperamental. Whereas that is an overstatement for general application it is far from false as a popular belief, and contains more than a shade of truth as occasional fact. So perhaps a client who does not know his architect is warranted in employing defensive tactics of an annoying nature.

All of which brings us to the establishment of an office, with a job in hand, and introduces the manifold problems of work production, general policies and the like. There will be

tempting competitions to enter but should you? They will be of different types to be sure, but they all take time and by that token, money. Experience has taught several things about them and about other types of publicity, as it has about the letters one writes and answers, the books and records one keeps.

These details are inter-related in a measure, but behind, above and around them looms the spectre of Overhead. Every architect and draftsman whose livelihood really depends on the profession of architecture knows that an office must be run so as to make a reasonable profit, as is any sound business. Furthermore, he knows that no amount of wishful thinking or other dodging of realities will lessen the fact that any and all costs entering into the practice must be reckoned with. It is utterly impractical to conduct an office without knowing overhead, both as a running average and as a particular case. Everyone's prosperity depends on this knowledge, the draftsman's as well as the architect's, for certainly the former will not receive adequate compensation for long if his boss is not making a living. A young architect should take this seriously to heart and start right. He has got to discipline himself to the inescapable demands of a victorious encounter with this insidious profit-eater, even though it seems to his youthful idealism like a partial betrayal of the art he has elected to live for, and by.

Running parallel with these considerations, as though there were not already enough trouble, you have a client to handle during the course of construction. His or her nervous stability will be somewhat out of whack, due naturally to an intense interest, a relatively large sum at stake, and an unfamiliarity that breeds instant apprehension. The house is indubitably hers and should be built to the client's liking, within contractual limitations, but your aim is to make her like the things you like as a trained professional.

Then, too, the contractor and sub-contractors come naturally by their own points of view, often at variance with everyone but themselves. You, as the client's representative, are always in the thick of it.

Assuredly there is much to be learned apart from pure architectural design; much that is pure business, or strategy or practical psychology, and all to the end that you may live and be decently prosperous in the practice of architecture, wherever you may locate.

The average draftsman lacks capital and has too many financial responsibilities to shove off blithely at the first inadequate excuse. I believe that in recent years fifty percent of those opening offices did so because they had been fired and could find no other employment. That may be an excellent way to profit by seeming misfortune, if you know and practice a system for getting jobs.

Draftsmen who have quietly pursued work on the side, with gradually increasing success, are brought to the great decision in that way. When there is enough ahead to give security the conclusion is simultaneously reached that long hours of night work wear a man down, and make him of more use to himself than to his employer. Sometimes the boss tells him just that.

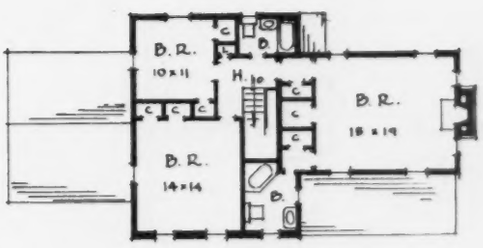
So far we have concerned ourselves with the objective of a practice as such. The elementary impetus to do anything with one's life is apportioned between economic necessity, innate desire, or social custom. A man with the opportunity for a good general or specialized education usually has the privilege of choosing a pursuit because it promises rich profits, or offers the pleasurable development of his talents and is reasonably profitable. Now, a profession is defined as a gainful occupation, not primarily concerned with profit-making. Its prerequisites are intellectual power and the superior ability to find reward, not alone in fees and commissions, but in a love for one's work; in its social dignity and importance.

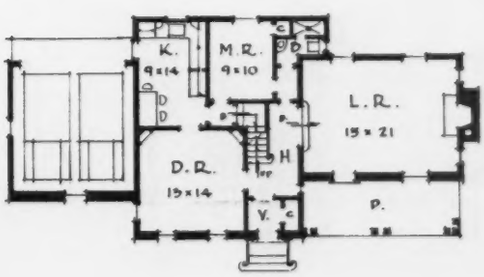
No architect worthy of the name is wholly commercial in his attitude, but if such a one, dubbed "architect," is solely concerned with profits and happens to be honest as well, then he has chosen a very laborious way to wealth.

My opinion is that ninety percent of the architects who have entered the profession via a university have previously accepted the "professional" point of view; that most men who work up from office boy to boss come to accept it, although their youthful entry into the field preceded any definite opinion in that regard and may originally have been through mere chance.

The attitude of joy in work should persist throughout a lifetime's practice, to the envy of your business-men friends, but do not forget that this priceless quality is very definitely enhanced by the cultivation of the realistic and practical point of view held by your more materialistic acquaintances.

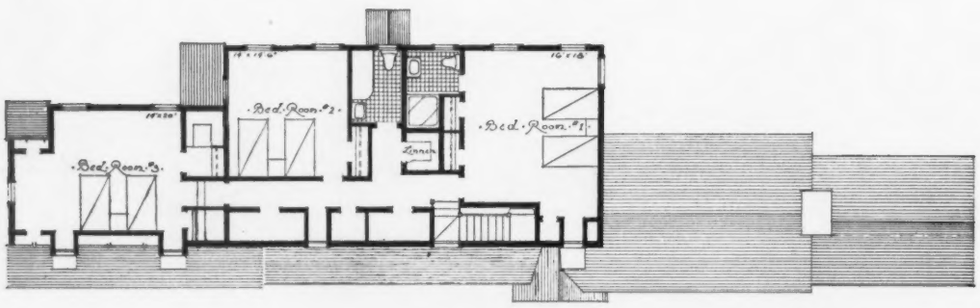
Another chapter of Mr. Wills' book will be presented in the June issue. It will deal with direct means of persuading the prospective client to become an actual one



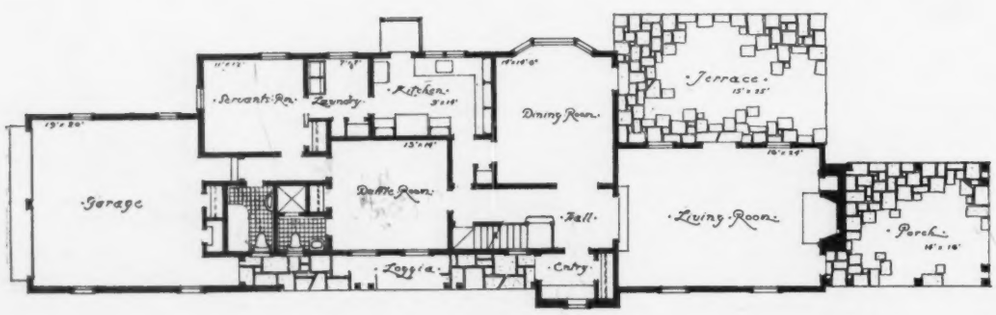


This residence for a suburban development at Scarsdale, New York, was designed by Francis Kapp, Architect, of Yonkers, who included among the features two closets for each bedroom, in addition to storage space for linens and other supplies on the second floor. The rendering is by Theodore Kautzky, Delineator

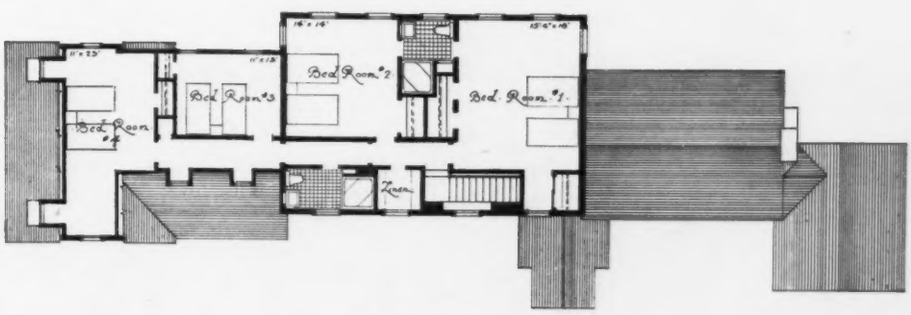
Phillips Brooks Nichols, Architect, of White Plains, New York, designed the residence above and the similar house on the opposite page, emphasizing spacious rooms and informality in arrangement suitable to the pleasant rural setting



Second Floor Plan



Both these country residences are now under construction at Quaker Lake, Pawling, New York, for Lowell Thomas. The renderings are by J. Gaydosh, of the office of the Architect, Phillips Brooks Nichols and show the character of the site



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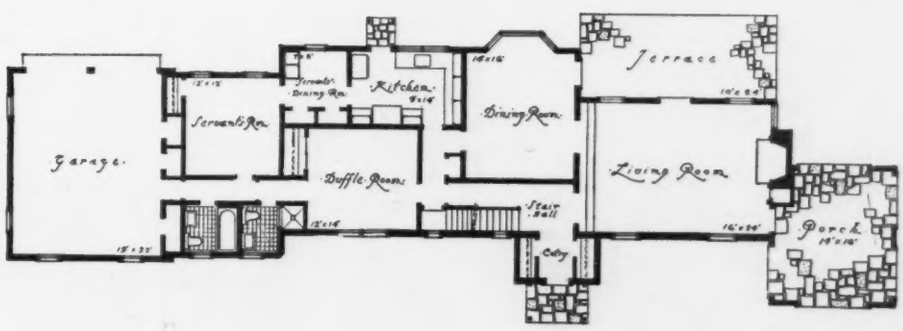
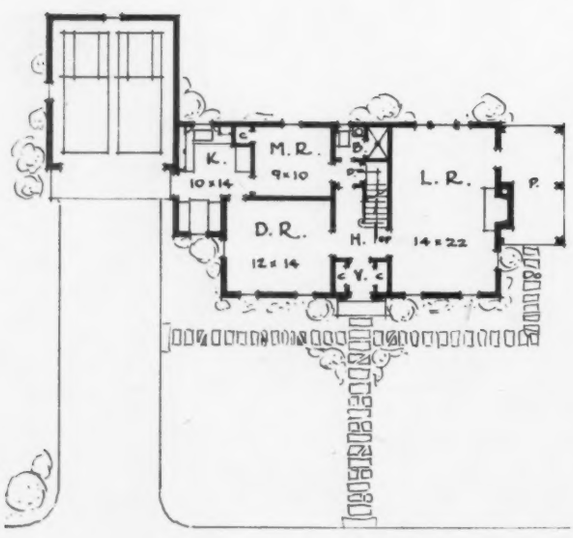
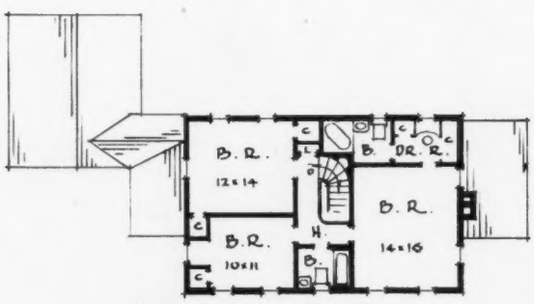






Francis Kapp, Architect, of Yonkers, New York, designed the residence shown above in a rendering by Theodore Kautzky. It is for a development at Scarsdale, New York. It is of the symmetrical, semi-formal character popular in many suburbs

CHALLENGE TO THE ARCHITECT

BY TALBOT F. HAMLIN

FROM one year's end to the other I see a lot of architecture. I see it on the streets, at the Fair grounds, photographed in books and magazines, displayed in exhibitions, diagrammed in plans and elevations . . . Or maybe I see a lot of what might be architecture. I don't know. Maybe I see too much. But this I know, this I have to admit—that at so little of our contemporary work does my heart really rise; that so rarely does it get past my topmost mind and hit home to the emotions. How can we blame the public for being listless about architecture when so very little that we do gives even us architects a valid thrill?

Why, in other words, is there so little of compelling beauty in the contemporary architecture of America? Why does it seem sometimes as if the architects themselves were afraid of even the word "beauty"?

Yet I know there is beauty to be created in buildings. I know that beauty has been created, because I have felt it. I have felt it in the presence of buildings of all sorts and styles and dates. I have been in the Pantheon at dusk, when the magic light, pale blue, poured down from the oculus like something solid, bathing the perfect circle of the interior, picking out the details, showing how each had a part in the whole—and suddenly it was almost as if my heart stood still and I was for the moment in a timeless world . . . That is architecture.

I have seen the colored light from the south rose of Notre Dame dye the piers of the nave, and the floor, with blue and red, and seen the great round columns, as it were floating on shadow, with the vaulting shafts above them running up so surely to the dusky vault, and I have felt the shiver of deep physiological feeling run crisping through my nerves at the sight . . . That is architecture.

I have seen the pure white of Dudok's Hilversum Hall lifting itself so gaily above its broad reflecting pool, with its sharp horizontal and vertical accents woven so subtly and so surely together into one serene pattern, with its long horizontal walk leading so invitingly to the broad, welcoming door, and the tower rising above like a masonry fountain gleaming in the sun; and at the sight the perfection of the pattern, the humanity and the more than humanity of it, the gaiety of color, the loveliness of shape have made me feel suddenly humble, and yet suddenly proud to be a man . . . And that is architecture.

I have seen the glittering glass-banded walls and suave surfaces of the Van Nelle Factory in Rotterdam—and felt a new dignity in industry, a new promise of a fair, bright world of machines. I have watched the penguins with their absurd dignity waddling like tiny dress-suited politicians up and down the flying spiral ramps of Tecton's pool at the London Zoo, and in that perfect blending of form and purpose felt the deep satisfaction of real wit, the purging of true humor. And I have felt in the marble hall of the Naples Post Office, with its vital curves, its lavish materials so schooled and disciplined, with its red marble tables for you or me to write our postcards on, a new vision of a people's building—a public building—for all the world. And these, too, are architecture.

And, in this sense, I find architecture disturbingly and discouragingly rare in America in 1939, and I wonder why.

The lack is all the more remarkable, because we have such a wealth of material to work with. Nowhere is building technique more highly developed; a French architect, after his recent first visit to America, said that in technique we were twenty-five years ahead of Europe, and that in our handling of metal and glass and plastics we easily led the world. Nowhere are the problems of building economics and building economies more thoroughly understood. And nowhere have the practical planning problems of those complex buildings our century demands been more deftly and efficiently solved than in the best of our hospitals, our schools, our hotels, and office buildings. Yet so few of these, efficiently planned and perfectly built and lavishly detailed as they may be, transcend the purely practical and efficient, to become the aesthetic experi-

ences great works of architecture are. So much is merely adequate, entirely pedestrian. Why?

Others have been conscious of this strange dilemma of skill and dullness, efficiency and boredom, and have sought answers to it. Adolf Loos, that dynamic and revolutionary ex-stone mason and ex-carpenter who became one of the great forces for renewal in European architecture, had his own answer, which one of my students called to my attention. Loos said that the reason for the failure of contemporary architecture was not too little art, but too much; that art and architecture had nothing to do with each other, for all art was timeless and architecture was the creature of today's need, and that the architect's task was to fill that need logically and forget art altogether. He places architecture and tailoring on the same plane . . . But what, then, of the Pantheon and its magic circle? What of Notre Dame? What of these other buildings which reveal so much more than mere tailoring, which become timeless, which become experiences to the beholder, experiences that lift and expand the soul? Are they not, rather, what architecture is?

Others say that the reason for the comparative dearth of architectural masterpieces of today is because the architects have lost touch with "life," and that thus our architecture becomes bloodless, pale, dull. But, personally, it is difficult for me to see (judging from my own experience, as well as that of others) how an architect *can* lose touch with life so completely as this. After he has wangled a job, fought a design through an unsympathetic committee, struggled to bring together the client's soaring demands and pinched appropriations, coordinated all sorts of expert advice, let contracts, examined contractors' qualifications, made details, arranged for extras or credits as the client changed his mind, striven to avoid or perhaps even helped to settle jurisdictional strikes, had his experiences with grafting contractors or union boycotts, perhaps been in trouble with crooked building departments—after he has done all this, and approved the final certificates, he has learned an awful lot about life today, its economics, its labor problems, its politics, its desirable or undesirable qualities, or else he is deaf, dumb, and blind, and hopeless anyway. No architect can help being in touch with the society he serves. So that criticism can't be the answer.

Then there is the contrary criticism that the usual dullness of architecture is not the fault of the architect, but of "society," of the system, whatever that may mean. The architect is so entangled in modern life that he is hampered in his creation, in his ideals and his accomplishments, by the whole of present civilization. Under another system, say these critics—and they are legion, both on the right and on the left—architecture would blossom like daisy fields in June. This is an especially common accusation, because it affords such an admirable excuse for the architect and saves such a lot of thought. Especially, it saves the need for present-day creative effort, which, if these critics are right, is today fundamentally futile and bound to fail. Well . . . and then I look at the architecture of Germany today, and of Russia today, to see what creation under the complete victory of the right and of the left is like . . . No, this criticism does not seem valid. We can't make this our apology.

Louis Sullivan correlated architecture and democracy. Pugin correlated architecture and Catholicism. Cram seeks a return to the Middle Ages; then our architecture will be great. But I have a sneaking suspicion that the broad expanse of utter dullness in a cheap suburb may be as true an expression of our imperfect democracy as is Sullivan's magnificent Guaranty Building in Buffalo. And I see the slave labor of turbulent Athens producing the Parthenon, the serf-agriculture and Albigensian massacres producing the Gothic cathedral, the Borgias and their contemporary Italian tyrants filling Italy with beauty, and Fascism building the Naples Post Office . . . No, that theory will not hold. Society, of course, does influence architecture. Society may hamper the architect. But beauty has a strange way of thrusting itself up out of the mire, and no disgust or disgruntlement which we architects may feel as citizens at the political and economic system under which we live is or can be an excuse for our failure as artists to create beauty. As citizens we can, and must, strive to improve the social whole; as artists we must take the materials we can get, and mould them into transcendent experiences.

There is another criticism of today's architecture current—the theory that the architect cannot produce beauty today because he is no longer the "master-builder." Antonin Raymond, who has produced so much distinguished and lovely work in Japan, upholds this idea strongly. The architect, he claims, must be engineer and builder, too. He must calculate his own beams, direct his own works, hire his own labor. Only so, he thinks, can that honesty which is the parent of true beauty be cultivated; only so can the curse of paper architecture—picture-painting—be avoided.

Now of course paper architecture is stupid, and the architects who think in terms of two-

dimensional projections—the only ones to whom the term picture-painters can apply—are fooling themselves and us. But to require the architect to be engineer (except in that broad intuitive way which we call having a structural sense) or to worry himself with the last details of dollars and cents as a contractor must, that is another thing entirely. I can only look at these things realistically. A building is distinguished from sculpture by having its special anatomy of weight and support, of things and spaces arranged to perform the function for which the building exists, which is different from the anatomy of a human figure or an animal or a sculptor's abstract conception. And, just as the anatomy of the sculptor's figure will control the basic form, so the anatomy of the building will control the basic form; in either, falsification is fatal.

Yet the piece of sculpture, as a work of art, does not exist merely to display anatomy; abstract formal relations designed to produce patterned form give it an emotional significance. All kinds of "distortions" of anatomy are sometimes the result, and we do not like the sculpture less for them, but more. The statue exists, a series of visual and tactile impressions.

And the building, too, for the greater number of people who see and use it, exists also simply as a series of visual and tactile impressions. If it is to have any effect upon these people, it must do it through these visual and tactile images; it may often make no difference at all to them whether a beam is eight inches or ten inches deep—except as a change in visual proportions. And the same is true of all the minutiae of engineering calculation. There are visual and static effects to be gained, which will produce emotional responses—lightness, laciness, power, strength, gaiety, solemnity, or what you will. It is of course true that buildings must stand up, and be workable, functioning machines. And it is probably economically wise that they shall not be wasteful of material. But as works of art it is the totality of impression, the symphonic quality of emotion-producing form, which is important. The sense of structure, the sense of materials, and the sense of function effortlessly efficient are part of this symphony, but the details of engineering calculation and of financial administration are not. They may help to bring it into being, that is all. The Parthenon is immensely wasteful of material, and it is great architecture; its column proportions are determined by quite other elements than the bearing strength of Pentelic marble. The Gothic architects—and architects, not masons or contractors, they were—knew little save intuitively, and what they had learned in the hard school of trial and error, of the mathematical analysis of thrusts and weight. Much beautiful building is, in fact, mathematically indeterminate, even today.

No, the secret of beauty does not lie in engineering; and when engineering structures are beautiful architecture, as they frequently are, it is simply because, either by pure accident or because of some intuitive creative sense in their designer, they have transcended the plane of mechanics and calculation, and entered the plane of pure form.

Robert L. Anderson gives us still another criticism of the attitude of architects today, and another explanation of the dullness of so much contemporary work. This is that the architects have been so taken in by the good old romantic idea of architecture as an expression of culture that they have devoted their talents to seeking for expression rather than to the search for visual beauty; they have become, he claims, sociologists rather than designers, and in the change the art of architecture has suffered.

Now this is an interesting idea. But, to me, it is too limited. Architecture, whether we like it or not, is an expressive art, and the building each age produces cannot help being the product of its age. To ask the architect of today to forget that he belongs to the Twentieth Century is as silly as asking a farmer to produce grain by forgetting the soil in which it grows. For good or bad, we architects are necessarily contemporary; even our swiftly dying and decadent eclecticism is contemporary. We build for Twentieth Century clients, with materials furnished by Twentieth Century commerce, and we construct in accordance with the methods of Twentieth Century industry. To some, "being modern" is the only requirement of design. This is, of course, not enough; to that extent Anderson is right. Women's crazy hats are modern now; they certainly are not beautiful. National sadism and racial persecution and two-ton heavy explosive bombs are modern, and they are utterly horrible and ugly. Exploitation is modern; unemployment is modern; slums are modern. Does that make them works of art?

No; obviously to be modern in architecture will not necessarily produce beauty. To be modern or to be un-modern are terms that have nothing to do with beauty. They are expressive of differentiations on entirely different planes. If we search for the roots of true architecture—the kind of architecture which makes one a better and a happier individual

because of its aesthetic impact—we must go deeper; we must seek for some definitions of beauty itself.

What is beauty in architecture, and how may we know when it has been produced? We have seen various things which beauty is not. It is more difficult to know what beauty is. The question leads into ordinary psychology, into psycho-analysis, into the problems of "meaning" and "value"; finally, inevitably, into the realm of metaphysics and the pure subjective. There is neither the time here, nor have I the background, to follow this elusive and fascinating trail. We may not be able to state exactly what beauty is, but common sense and our own experience will tell us when it is present; for beauty in art is, above everything else, a special kind of pleasurable and healthy experience, produced by objects designed to arouse it. If our buildings do not arouse this experience—this lift, this thrill, this awareness of universal pattern, this sense of fuller, richer life, this expansion of consciousness—then they are not beautiful.

To produce beauty in architecture is no easy task. The architect deals in pure visual abstractions; he has not the painter's, the sculptor's, nor the poet's obvious representation as an assistance. And the architect is limited by his materials in a much more constrained way than the painter or the poet. Nevertheless, his task is essentially similar; basically, it is the task of actual imaginative creation.

And does it not follow that very probably it is lack of imaginative creation which is behind the current dullness? Sometimes it seems as if we had almost forgotten the role of imagination in architectural design. We struggle with plan. We develop structure. We elaborate techniques. We choose materials. But, at the end, all too often what we have is merely a sum of various details, confused, hackneyed, or just plain dumb.

Nor is this imagination in architecture, which today seems so rare, required only in general design conception; it is equally necessary in details. Here is one of the great dangers for contemporary architecture. With the flood of new materials and mechanical contrivances, the temptation is to substitute mere clever ingenuity for creative imagination. We treat building materials like pieces in a picture-puzzle, not like opportunities for the artist. I remember the loving care with which details were sometimes treated by the elder generation of architects, like Richard Dana or Charles Platt; how the relations of convex and concave and flat elements were studied, with regard to the exact quality of light and shadow each unit would receive; how differences in profiling were made to take care of differences in illumination. Necessarily, the final result was no mere exhibition of ingenuity, but a designed modulation of values.

Now, of course, styles have changed, and methods of production have changed. But light has not changed, nor has human delight in beautifully modulated light and shade disappeared. The sun still picks out sharp shadows under projections. Convex and concave surfaces still have their own characteristic shade variations; reflected lights from ground and pavement still light the under sides of things with changing, soft luminosity. Yet how seldom in the modern drafting room are these factors given the importance they should receive! Buildings exist in light, and owe their entire visual effect to light; every change in surface or plane, every projection, every difference in materials, every change from a reflecting to a non-reflecting, from a transparent to an opaque, element shows because of what they do to light, and what light does to them. Without light, these cease to exist.

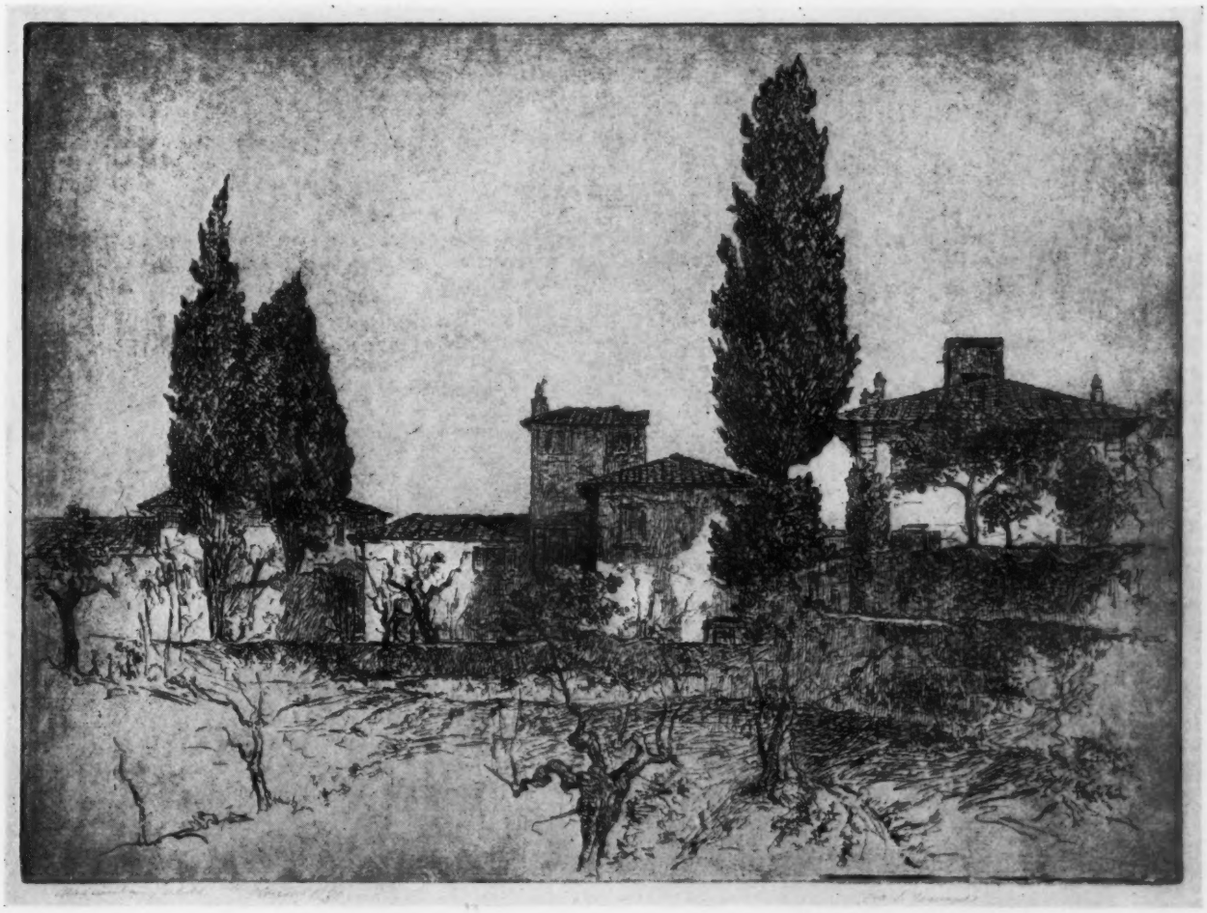
We all know this; yet how often do our buildings look as if they had been thought of merely as wire outlines, with no filling—as if they were mere black-and-white two-dimensional drawings. Even "good" buildings of today—that is, sensible, logically-planned, economically constructed buildings, buildings that are in so many ways admirable—too often have this diagrammatic quality. In them the architect's mind has functioned satisfactorily, but his imagination—not at all. In them there is only the thin, half-real, ghostly life that Virgil gives to the shades below; they look, somehow, only half-formed, strange premature births. They are diagrams only; of all the rich symphony of color and light and shadow which great architecture may be, there is no trace. No wonder the public is listless. They asked for bread, and we gave them a stone. They needed music, and we gave them bad Euclid.

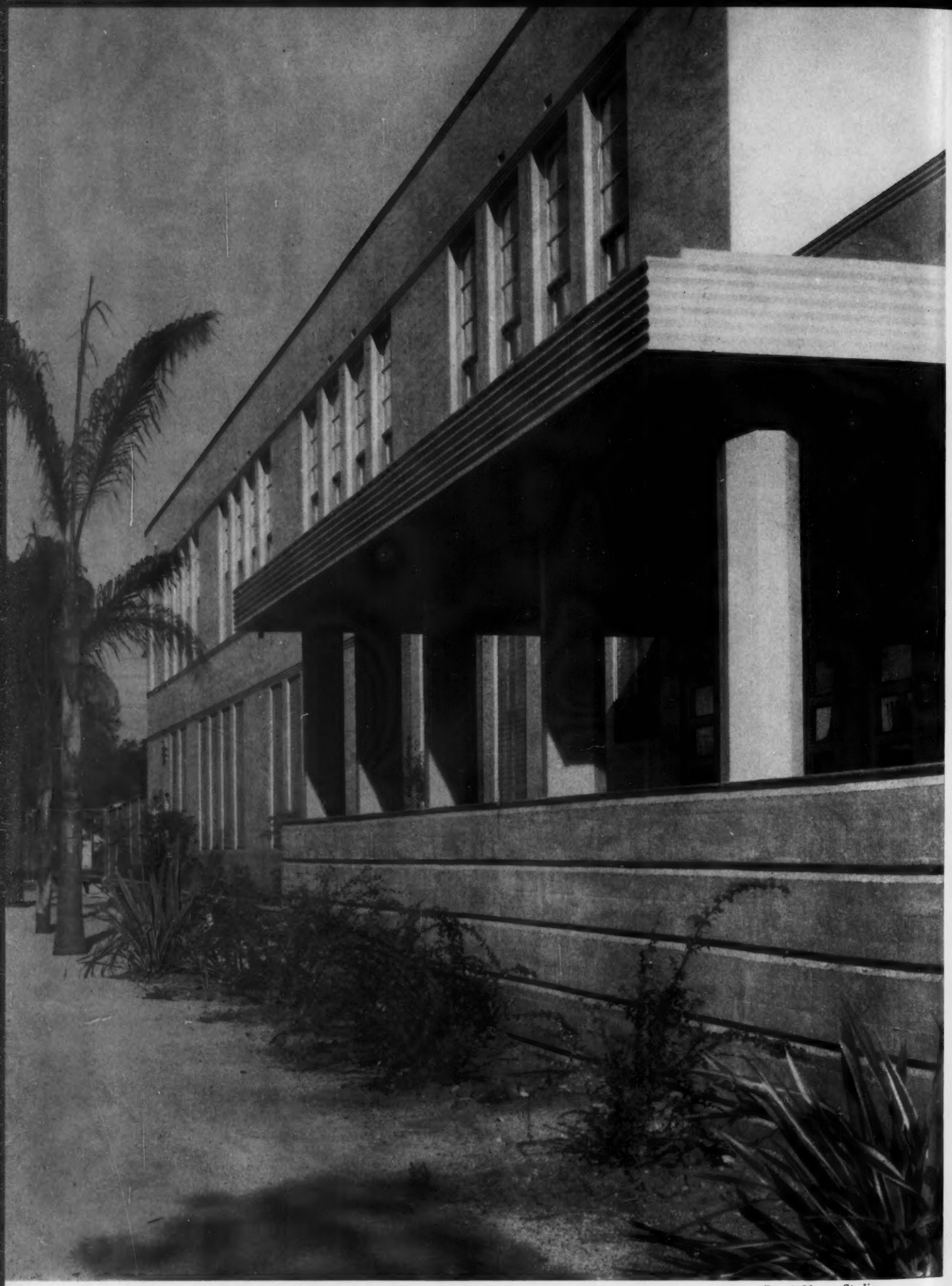
"But," the architect answers, "it is not our fault. We have no time to study; we are rushed and pressed . . ." Nonsense. If there is real creative genius in us, it will out. We have allowed ourselves to be jockeyed into a position of subservience. We have allowed real estate advisers and equipment technicians and government bodies of various kinds to take over our prerogatives and do our designing for us. We have sold our birthright for a mess of big jobs. Just as soon as we reassert our creative power, just as soon as we again become

designers, creators of *beauty,* then we shall find our true place in life, and architecture will be re-born. Just so long as we turn our backs on beauty, remain afraid of the very idea, sacrifice it to economics and temporary expediency, just so long shall we continue in our present state. Perhaps the whole world is afraid of beauty today; is in one of those neurotic, ugliness-seeking, masochistic states which have in the past been first signs of the madness given to those whom the gods wish to destroy. Yet even this is no excuse for the artist's failure; it is, on the contrary, only another, stronger challenge to the artist, for every additional lovely thing for people to look at and love and enjoy is just that much more help to sanity and growth—as ugliness is only one form of certain self-destruction.

Lubetkin once said to me that the trouble with a lot of the younger architects was that, the moment they had achieved a diagram which functioned and could be built, they felt that their problem was solved, and that they seemed to have almost no conception of the fact that architecture was a high, serious, difficult, and noble art—perhaps potentially the noblest of all the creative arts. There, perhaps, is the crux of the whole matter. Should we not all, at once, remember again this nobility of the creation of beauty in buildings? Should we not remember that our greatest function, above all questions of sociology and engineering and economics, is to bring a new beauty into the lives of present-day populations?

This pleasing etching of a North Italian rural scene was made by Maximilian Seibold, near Florence, in 1930. It is entitled "Via di Leonardo" and is representative of the artist's work





Berné Merge Studio

212 NEWTON & MURRAY'S SANTA MONICA BOULEVARD SCHOOL, LOS ANGELES

CONCRETE VIRTUES

AN ARCHITECT DISCUSSES A PLASTIC MATERIAL

BY ROBERT DENNIS MURRAY

EDITOR'S NOTE: *In last May's* PENCIL POINTS, *Aymar Embury, of New York, contributed a thoughtful discussion of the aesthetics of architectural concrete. Most of the points he brought out were generally agreed to by architects all over the country, but there were some things with which certain architects were not in entire accord. Robert Dennis Murray of Los Angeles, one of the dissenters, has essayed here to speak on behalf of a material which he has tried and tested in a number of buildings on the Pacific Coast and in whose merits he has acquired faith through experience. He gives here a number of bits of technical advice based on that experience. The photograph opposite shows a portion of a school done by Mr. Murray and his partner, Henry Carlton Newton, in which they successfully employed exposed concrete textured by ten-inch form boards*

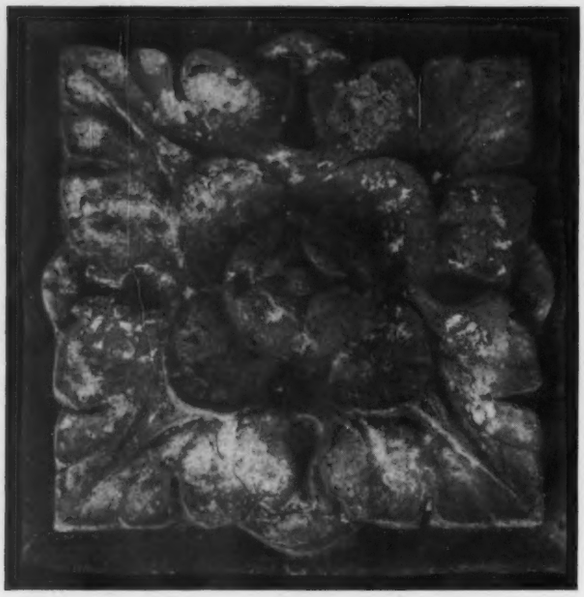
ARCHITECTS are perpetually endeavoring to achieve some worthwhile contribution to our national architecture which, though national, is a mixture of many styles, philosophies, and ideals. It is only logical that among all this diversity there should be some failures because there are so many elements that tend to frustrate our efforts. We should be allowed a certain percentage of failures.

One controlling factor underlying all our efforts is economy. In building construction, economy is the root of all virtue. Hence, without too much preliminary tub-thumping about "making the most of our materials" and attempting to astound you with staggering statistics and righteous reasoning, let me come quickly to my point: Concrete is, in my opinion, a satisfactory, economical building material—and by "building material" I also mean a material for finished surfaces.

A feeling seems to prevail among some architects and builders in various sections of the country that concrete is much more limited in its scope than is actually the case. Much of this is due, doubtless, to the fact that these same persons have had neither the opportunity nor the desire to use concrete as an architectural finish material. Without some intelligent experimentation of their own, or careful attention to others' experience, it is difficult for them to learn of the results that may be obtained with this plastic material. Such shying away from facts is hardly consistent with the spirit of this restless age whose axiom is: Never resist temptation; prove all things and, if possible, retain something worth while in the scuffle. However, men are wise, perhaps not in proportion to their experience, but to their capacity for experience. It has been said that "the man who listens to reason is lost." We have to listen to something, and if concrete is a material that will save money and time, and produce satisfactory results, it is worth while trying, particularly since we have fairly well passed the experimental stages regarding pleasing finishes for this material.

The use of concrete is by no means new. The Romans used it before the time of Christ, and rather extensively. What interests us, however, is not the antiquity of the material but its future possibilities—its plasticity, the new beauty of exposed concrete, its strength, enduring qualities and, of course, the saving in cost which can frequently be made over other materials.

The glories of the past are indeed interesting, but the glories of the immediate future are of much greater importance to us. Stone has endured through countless centuries, whereas buildings of clay and wood and metal have crumbled and corroded away. Stone in a concrete form has been perhaps the most useful of all building materials through the ages. It was carved, colored and tooled in various ways as long ago as history records. Gothic architecture consisted essentially of stone upon stone skilfully cemented together to form a concrete mass. It was not a veneer hung upon a skeleton. Cast-in-place architectural concrete in pleasing forms suitable to this plastic material, is a true expression of the material. But immediately when veneers are hung upon it and we dowel things into it, the strength



A bit of ornamental detail from the Central Junior High School, Los Angeles, for which A. C. Zimmerman was architect. The view at the left shows the appearance of the rosette as cast integral with the wall. At the right the rosette appears after machine tooling. Note that the crisp result was accomplished with an average depth of tooling of about one thirty-second of an inch, though much deeper cutting was done around the edges. Cost averaged about fifteen cents a square foot

A cast-in-place concrete cartouche from the Central Junior High School, Los Angeles, as it appeared just after stripping the forms and molds and again after wall surface was sprayed with Gunite and ornament tooled. The picture at the left shows how rough the forming may be when the surface is to be plastered or to be sprayed with Gunite

and beauty of concrete are no longer apparent. Furthermore, in localities where earthquakes are frequent and violent, veneering materials are often shaken loose or damaged beyond repair. Where soil conditions are not good and weight becomes an item of importance, hollow wall construction and lightweight aggregates can be used effectively and the job can be accomplished more quickly by using exposed concrete than by going back again to hang a veneer over the exterior.

There is no Golden Rule that we can follow for guaranteed, perfect results with any finish material. The best rule is that there are no Golden Rules. But with a fair amount of care and common sense and honest intentions, we can accomplish great things.

Too often there is fear that any ornament in concrete except the simplest of geometrical forms, will be unsuccessful. Usually when details are not as sharp as desired or are missing altogether, there is resort to panic-stricken pointing which leaves a rather messy, lumpy appearance to the done-over detail. This is quite unnecessary. It is so much more simple and effective to fill-in and build up surfaces with the Cement Gun, and then bring the detail back to the desired form and texture by tooling.

To commence a discussion of the virtues of a material by explaining how to patch it may seem an unusual procedure. But patching, in case something does go wrong, seems to bother a great many architects and builders and is about the only stumbling block—or imagined one—deterring them from using concrete as a finish material.

Gunite (concrete placed pneumatically with a Cement Gun) is tough enough so that, when the patches are tooled over, the material will not break down and the spots thus tooled are very difficult to detect. In the Central Junior High School at Los Angeles, the cartouche above the entrance shown in an accompanying illustration was handled with such care that it stripped almost perfectly. The simple molded strip above it, however, was missing altogether in some places. These surfaces were easily built up with gunite of the same color as the rest of the ornament and then machine tooled. It would take almost microscopic examination to discover that patching had occurred.

In molding this cartouche, allowance was made for escape of air from all intricate pockets through air-holes. That is one reason why it stripped perfectly from the mold. Piece-molds or sectional molds may be used for forming such ornament with excellent results. The illustration of the side-aisle of the Church of St. Peter and St. Paul, Wilmington, California, shows intricate caps which were cast in piece molds. Air-holes in the molds are advisable for all such work. The protruding knobs formed by these holes are easily tooled away.

Bernè-Merge

Side aisle of the Church of St. Peter and St. Paul, Wilmington, California. Henry Carlton Newton and Robert Dennis Murray, Architects. Columns, caps, and arches were all cast in one piece. The bases were recessed to receive the tile that shows in the picture. Piece-molds were used for the caps and none of the surfaces of caps, columns, or walls was tooled after being cast in place

The main portal of the Church of St. Peter and St. Paul is an interesting example of tooled concrete. The entire area surrounding the entrance was to be veneered with cast stone. However, one of those embarrassing incidents occurred wherein a large concrete beam was placed out to the finished surface of the wall by mistake so that no room was allowed for setting the veneer at that point. After much argument with my patient friend Ventura, I decided to let him tool the rough concrete beam in an attempt to give it the same appearance as the tooled cast stone. The result was highly satisfactory. (See next page.)

Because a concrete surface is cast in place (and, as I said before, there is no reason why we should veneer a surface which can be made otherwise interesting) it does not mean that we can not texture or treat the surface as

Bernè-Merge

The Main Portal of the Church of St. Peter and St. Paul, Wilmington, California, affords an interesting example of a tooled concrete texture. All of the ornamental detail was cast and then tooled to match the surface of the cast-stone veneer immediately surrounding the doors. The remainder of the wall was formed with ten-inch boards and it was left rough. Henry Carlton Newton and Robert Dennis Murray were the architects

much as our desire and our budget permit. Or, is there some game we are playing whereby we are not allowed to touch surface inperfections once a job is placed? We are not attempting to imitate stone, nor iron nor any other material. We are simply making the surface interesting and presentable. Practically any treatment is effective and proper except rubbing. Rubbing serves only to make a mess appear messier. In other words, it is always well to remember the old saying: "It will never get well if you rub it."

Those who strongly profess a desire to "make concrete look like concrete" remind me of a client, a person of some intelligence in many matters, who had burned the midnight oil (and I think tipped some of it over) reading Ruskin. "Iron," he always said, "should be black if it is to look like iron, and I won't have it painted gray." And for some strange reason leather had to have a raw beef cast, otherwise it just didn't look like leather to him. Such ideas about imitation are stubborn, but not very practical, and they have little bearing on the ultimate æsthetics of a project. For instance, in the Narthex of the Church of the Precious Blood, in Los Angeles, certain difficulties made it necessary to use cement plaster in imitation of concrete for the cloistered groined ceiling. It is so well done that even the keenest concrete expert can not tell you that it is an imitation. When the plaster had set sufficiently, thin watersoaked boards of the same graining as the side walls were pressed against the curved surface. The graining is perfect.

So I say: tool concrete, sandblast it, do almost anything to it except rub smooth spots onto a textured surface. The brush coat you may paint or spray over these shiny spots will show a variation in texture, and there is nothing left to do but plaster the wrecked area or dig the spots out and retexture the surface in the manner just described for imitating concrete. If very smooth forms have been used, rubbing is less objectionable.

Some architects object to concrete cast in board forms which have strong grain marks. I have even heard the complaint made that it

seemed an imitation of wood. I can't see the point. It looks like concrete cast in wood forms to me, and when well executed it has a very pleasing texture on close examination. Possibly we have worried a little too much over the matter of whether the exposed concrete surface looks like concrete to John Jones on the street. Probably stone-work to this same John Jones isn't really stone-work unless it has a haphazard, peanut-brittle, cobblestone surface. Who knows?

We have pretty well solved our texture problems. If we wish a very finished, smooth surface for certain purposes, we can clean the concrete thoroughly and put a thin dash-coat of cement plaster over the plain surfaces with brush or gunite process, then a brown coat, a finish coat and finally a stucco coat. If gunite is used exclusively, only two coats are necessary and it insures a better plaster job. The ornament should be protected and preferably tooled. If tooling is not possible, the brush coat should go over the ornament. This, however, tends to destroy the character of formed detail.

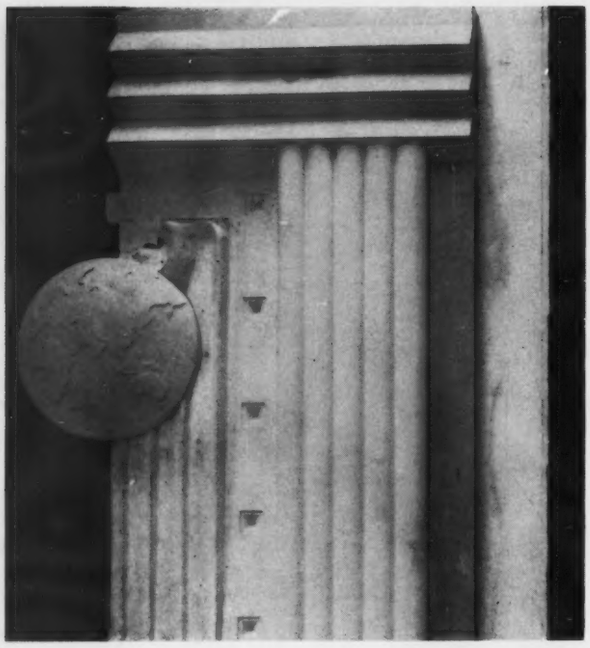
At present we are going through a very interesting phase of finding out the many finish textures we can achieve with concrete. The next important step is to explore the great possibilities of using color in concrete. John J. Earley of Washington, D. C., has made some very interesting strides in this direction. A tour of Mr. Earley's plant on the Potomac is a rare treat and a revelation to most of us. When something of the sort is done with cast-in-place concrete for a reasonable cost, we will indeed have arrived with color for this material.

Production of sharp, clean cast-in-place ornament requires careful attention to preparation and use of the forms. Wood forms are generally used for running moldings, and plaster waste molds and piece molds for more complicated work. Plaster waste molds are first shellacked and then greased with stearic acid which is heated in a pan and thinned with kerosene. Thereafter the surface of the mold is dusted with soap-stone and brushed in order to distribute the soap-stone and remove excess grease. Unless care is taken the stripping may become a costly and difficult job. A colored splash coat is frequently used as the inside surface of plaster molds. This provides a danger signal where chipping of the plaster is necessary.

With piece molds, the mold maker must prepare an individual piece for each section so that it will draw independently of the others, and then make a case to cover the en-

Bernè-Merge

Interior and exterior views of the Church of the Precious Blood, Los Angeles. All ornament was cast in place as part of the walls. The Stations of the Cross and the light fixtures shown are temporary and mosaics were later added around the arches. Ten-inch boards were used for forms. Newton and Murray, Architects



Model for detail for Santa Monica Post Office. Louis A. Simon, Supervising Architect of the Treasury, and Robert Dennis Murray, Consulting Architect. Half-model, as shown here, was about three and one-half feet wide

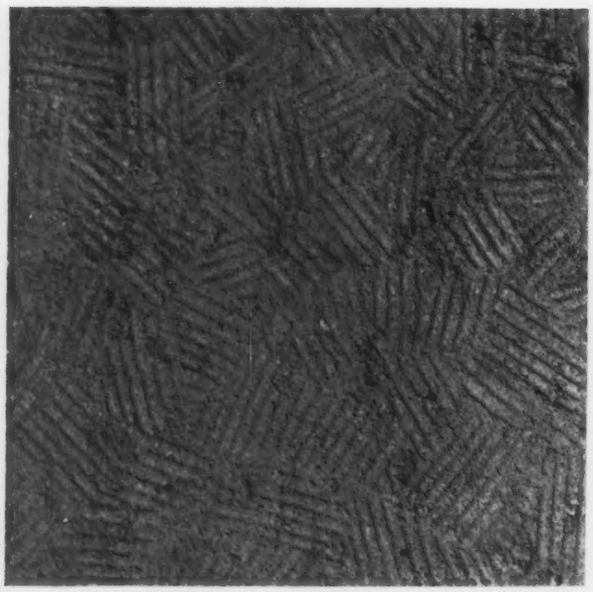
tire model. The trick is to get the pieces flush on the inside. When all pieces are in place, the mold is cleaned and all joints are painted and patched. After the plaster is thoroughly dry, it is sprayed with heavy lacquer and greased before concrete is placed. With this procedure the most intricate undercuts can be pulled, which is often impossible with ordinary waste mold work because the plaster sticks in the undercuts.

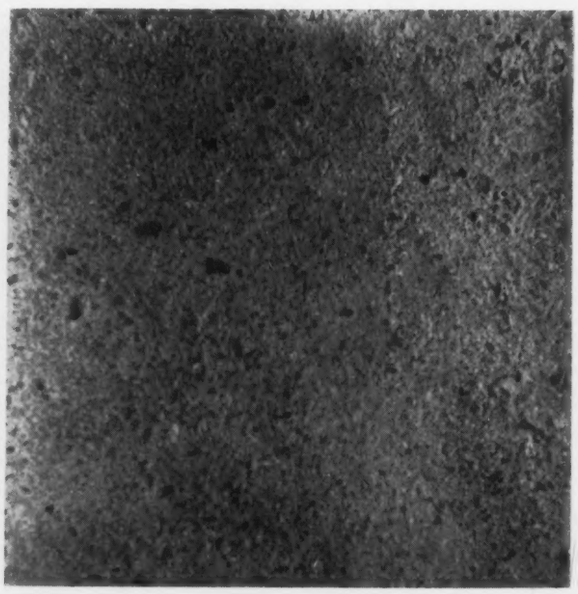
I have witnessed the tragic spectacle of finish-carpenters cutting waste molds away with wood chisels (this was in the early days before we knew much about such things) because cheap unskilled labor could not be entrusted to cut just to the right point without chiseling off a few saints' noses. That was necessary because the molds had not been greased properly and because waste molds were used where the work properly called for piece molds.

A Corinthian cap or any other complicated detail of the sort, may require a piece mold made up of 20 to 30 different pieces. Where budget limitations preclude such procedure and the style permits, a simple type of ornament as shown in the United States Post Office at Santa Monica, California, can be used.

Construction and expansion joints must be carefully considered if good textures are to be achieved. The forms, where possible, should be regulated by the size of the surfaces and designed to coincide with the joints, that is, unless the surfaces are to be later plastered over and these lines can be disregarded. On one particular job I designed, we were able to place one side of the building in a day, from water table to cornice. This was a simple, rectangular building and the pilasters were arranged

At the left, below, is a close-up of the tooled texture of the jamb of the entrance of the Central Junior High School, Los Angeles, for which A. C. Zimmerman was the architect. At the right is shown an entirely different surface finish for concrete, produced by sand-blasting, on the William Wrigley, Jr., Memorial on Santa Catalina Island. William E. Parsons, Chicago, Architect





Berné-Merge

Ten-inch saw-sized form boards gave a pleasing texture to the walls of the concrete residence of John Wagner in Los Angeles. Newton and Murray, Architects

as vertical separations for the different lifts of concrete.

An excellent example of the use of ornament at construction joints over a fairly large surface is found on the new warehouse of the Government Printing Office in Washington. This building, which I had an opportunity to observe under construction, has been ably described by Aymar Embury in his article in last May's PENCIL POINTS.

Discoloration or streaking of the walls can be reduced if dust catching projections are kept to a minimum. Generally it is quite difficult to control streaking, that is, by designing projections so that they will cause streaks to form a pattern. The wind has a way of playing strange tricks with the streaks. Certain buildings designed in a particular style in which a rugged, aged, weather-beaten quality is inherent in the style, look well when streaked. However, modern buildings dependent upon a neat, clean appearance, look particularly bad when muddy discoloration forms rakish patterns over the surfaces. These blemishes are almost as objectionable as rock pockets and should be avoided.

In Southern California, where our rains occur usually during one season and for the rest of the year much dust settles on every sort of ledge, special care should be taken. Even small ledges can be sloped back to the wall and drained to concealed pipes. I have tried it with success. Where a bit of practical thought is given to the problem, the weathering of concrete can be very beautiful.

Care must always be taken with exposed concrete to form all corners to prevent leakage of the freshly placed concrete. Window reveals should be given particular attention. Such places should be mitered so the thin ends of boards or vertical boards which change the direction of the texture, are avoided. Arches, especially the soffits must be handled to avoid ugly, haphazard forming. Where plaster molds are used in conjunction with wood forming, care must be taken that the boarding be cut to the profile of the ornament to prevent a wide, smooth streak all around the detail. Such careful forming, of course, is not necessary where a coat of plaster is to be applied as the finish texture.

It is usually better to project ornament from the wall surface than to cut into it. Deformation of the steel to clear the ornament, which may become very costly, is thus avoided. Deeply incised ornament may weaken the concrete structure.

At all times it is important that forms be kept tight. This will prevent water from leaching out of the concrete, causing sand streaks and rock pockets. Thorough placement of the concrete, a first requirement in an architectural concrete job, is facilitated by mechanical vibration combined with spading. A more dense concrete results and there is greater assurance that rock pockets will be eliminated. When the sand used is deficient in fines, it is frequently found that the use of certain admixtures will improve workability and produce smoother surfaces.

It is advisable to provide access holes in the inside form adjacent to complicated pieces of ornament so that a certain amount of rodding and hand work can be done to fill all the detail.

The surface that concrete presents to the elements is harder than most stone surfaces and slightly less hard than the hardest. It wears well and under certain conditions it colors well. It is easily tooled, but tooling and sand blasting have to be handled with a fair amount of caution for sloppy workmanship with *any* material is apt to lead to disaster. Sand blasting, on the average, costs approximately 3 cents a square foot. Tooling will run more nearly to 15 cents a square foot.

In addition to the virtues of concrete that have been mentioned, there are other more obvious advantages: concrete is one of the most firesafe materials known to man, and where it is skilfully handled by engineers as an almost elastic material, as it has been by such men as C. J. Derrick and others on the Pacific Coast, it is ideal for earthquake resistance.

Concrete is a plastic that lends itself well to many styles. Simple, modern designs have unlimited possibilties in it. Romanesque, or modernized Romanesque—in fact most styles—appear well suited to the material. Although I feel that the Gothic is not too successful in concrete, some interesting attempts have been made.

There is no reason why architecture should not have a sane, well-balanced, consistent look, whether it be designed in an ancient or a modern style. It need not have that "forced-functional" appearance that seems to scream, "Unfettered Genius in full flight," from even above the roof-tops.

One thing, I believe, our earthquakes have impressed upon us on the Pacific Coast, and that is: we need the full cooperation of engineers of "imagination" to aid us in our "flights"—and right from the take-off. For some reason, architects are inclined to feel that imagination is something beyond the mechanical realm of engineering; a path that architects of genius may tread unhampered by such annoying considerations as gravity, lateral forces, and the like. Most of us are not engineers and can not accomplish our "poems" alone. In other words, why should we "hog the whole show"? We can't play Uncle Tom, Little Eva, and the hounds as well. Architects, from time to time, have accomplished things that breathe the spirit of the "cooperation" of many minds working logically together—not the "priggish poem" of a single, self-appointed genius.

Perchance my somewhat Hibernian outbursts remind one of a machine mixing concrete. It is almost symbolic, for our national architecture and our architects are also a mixture—an aggregate of many styles, ideas, and ideals, from fine to coarse, fortunately following no one dogmatic philosophy or style. The result of the mixture forms one interesting mass, not the product of one or two of especial genius, but of many minds.

The new concrete school building for the city of Tupelo, Mississippi, designed by N. W. Overstreet and A. H. Town, Architects, is a splendid example of appropriate design expression of material. The ornamental forms are simple and well placed in relation to the whole composition. The building replaced one destroyed by a tornado and the massive character of the replacement may well be reassuring to the citizens who send children there

The Borden Creamery at San Antonio, Texas, designed by Atlee B. and Robert M. Ayres, Architects, remains a most satisfactory example of intelligently designed concrete detail. Forms for this type of ornament are economical to construct and easy to handle. The results obtained in this building are appropriate to the material

The Edmond Meany Hotel in Seattle, Washington—R. C. Reamer, Architect—shows concrete used in a striking yet wholly proper way. The fluting was produced by lining the forms with black corrugated iron sheets—a simple and economical method of producing a breath-taking effect. Only the upper part is shown

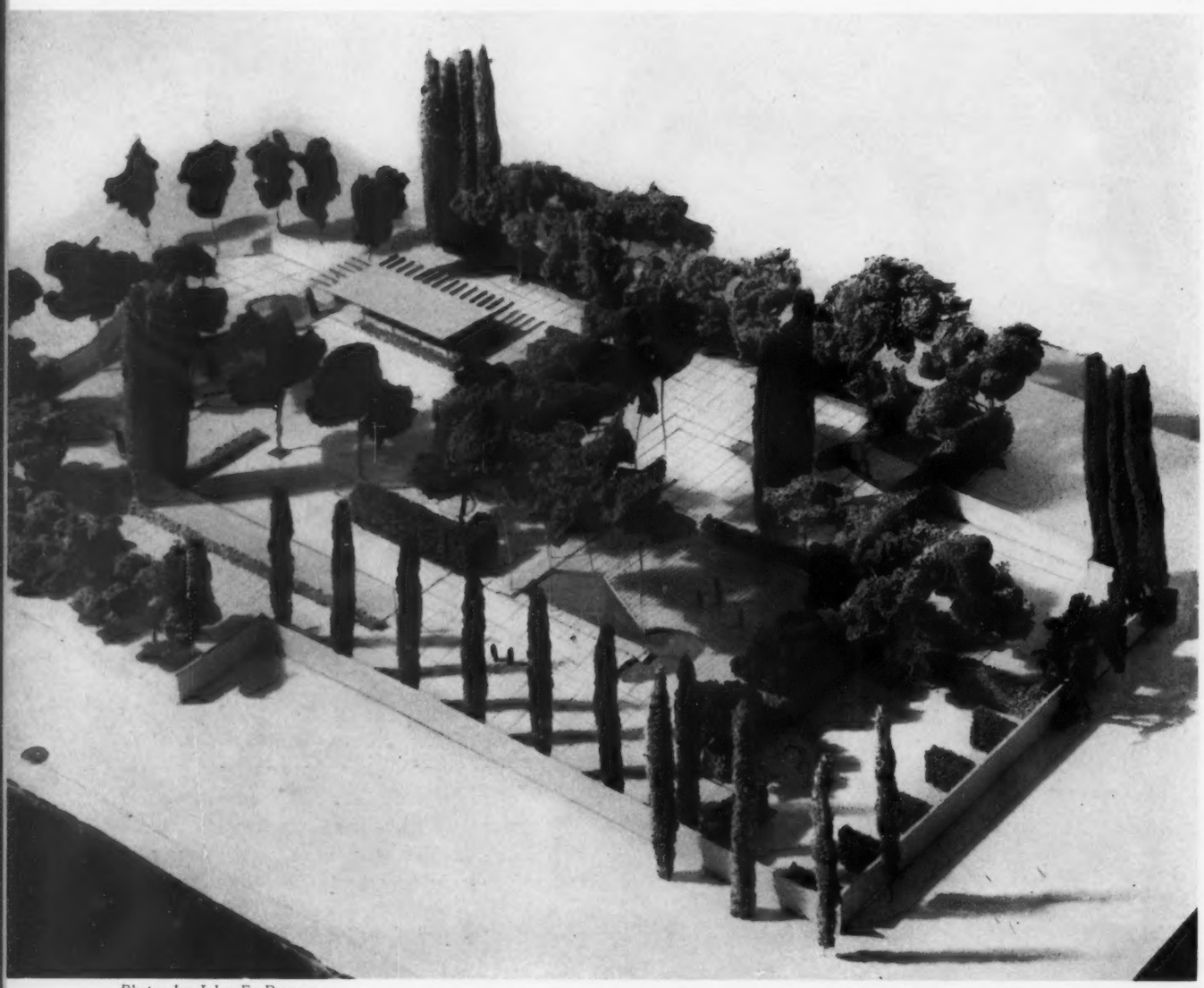
Laval Co.

Entrance to the Scottish Rite Temple at Fresno, California. Fred L. Swartz, Architect; W. D. Coates, Jr., Associated Architect; Carl Werner, Consultant. Plaster waste molds set in the forms before the concrete was poured took care of the effective ornament

Charles Krutch

The power house at Norris Dam, for which Roland A. Wank was Principal Architect, furnishes one of the most arresting examples available of the well-considered surface treatment of massive concrete structures. Rough-sawn, six-inch boards were used for forms, placed horizontally and vertically in alternate panels, the panels being separated by V-joints. The result is at once in good scale with the immensity of the adjacent dam and with the humans who move about its base

Choosing plants to fulfil design requirements through their inherent qualities as materials, the author shows in this working model how a space composition in plant form types is achieved through definition of space, without restricting circulation. He refers to it as "sculpture in plant materials; not in the ordinary sense of an object to be looked at, but the constructivist type of sculpture which is large enough and perforated to permit circulation." Transparent glass brick, plant forms below the eye level, and tree branches above the eye level give a sense of division without obscuring the view, resulting in a three-dimensional composition. The detail opposite shows the architectural division of space



Photos by John E. Dawson

PLANT FORMS AND SPACE

MATERIALS CREATE VOLUME BY DEFINITION OF SPACE

BY JAMES C. ROSE

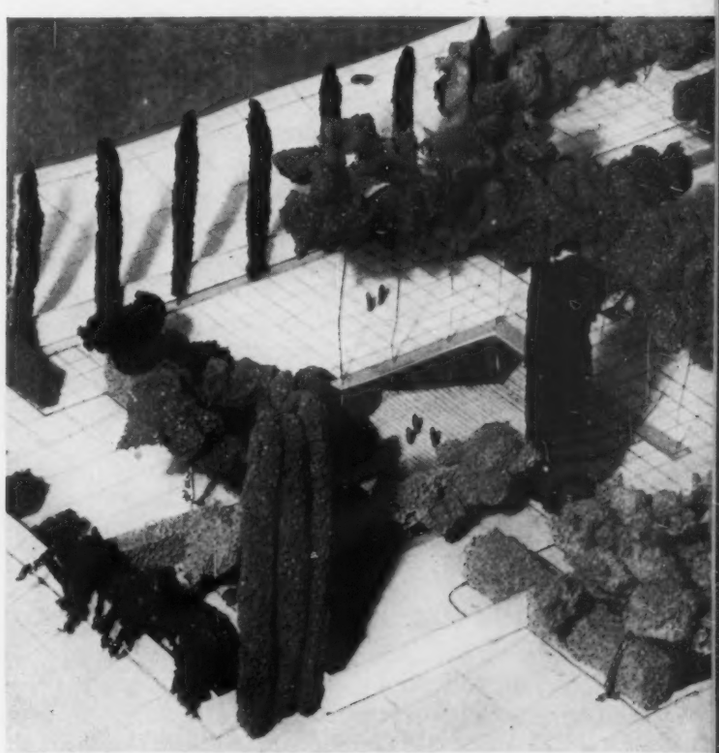
SPACE is the constant in all three-dimensional design, but a realization of space is not possible until it is defined by materials. In both architecture and landscape, material plus space create a volume through which human beings circulate and carry on the functions of living. Two material elements placed in close relationship, but not joined, create immaterial form out of the intervening space, and we derive a relation of void to solid wherein materials create volume out of infinite space. Individuals circulating within this volume of space interrupted and defined by material, perceive what is known as the interspatial vista which is apparent from any point within the volume, and in any direction one chooses to look. It replaces the arbitrary axial vista which is apparent from only one line of sight.

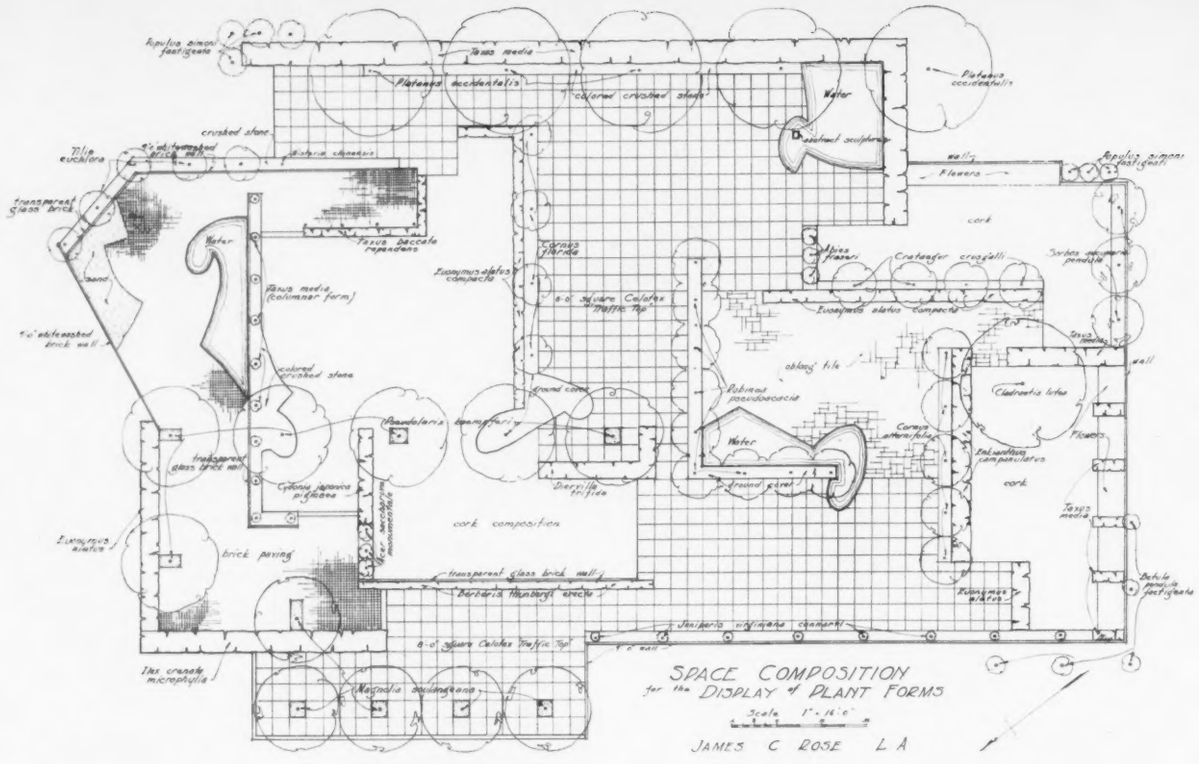
In buildings, we define space mainly with structural material to provide for the functions of living which require shelter. This structural outer shell articulates the form of interior volumes, which are broken into smaller volumes or partial volumes for use and circulation requirements and the best possible relation of void to solid, by which is created a knowledge and feeling of space.

In pure landscape, we drop the structural shell and the volume is defined by earth, paving, water, and ground cover; foliage, walls, structures, and other vertical elements on the sides; and sky, branching, and roofing above. When we move outdoors, the change is mainly one of materials to provide for a different phase of man's activities. Some of the conditions now are largely beyond control of the designer: existing topography, the scale and nature of surrounding country, and the human need for expansion and freedom due to the larger scale of less confined space; but the spatial conception of design remains the same.

II

PRACTICALLY all the weather-resistant materials of architecture have a landscape use, but plants are the great connecting link between man, highly-refined materials, and the uncontrollables of the outdoors. Plants enter into the domain of that which is not man-made but man-controlled, and because of their ever-changing qualities, require deeper knowledge and experience in their use than any other material. For example, to use plants intelligently, a landscaper must first know his territory: soil, climate, and indigenous growth. Then he must understand plant forms: not as he would like to have them (or as he might draw them) but as they grow, and to what extent they can be found in variations from the type, or altered and directed by constructive pruning. He must understand the potentialities of each plant: rate of growth, maximum height and breadth, and characteristic effect at maturity. He must know them not as separate forms alone, but also the immaterial form which will result in combination with other





The plan of the garden discussed in this article, drawn only as a record, illustrates the direction of circulation by placing of the plant, water, and architectural barriers. Interest is gained through the natural heights and forms of plants at maturity; with utilization of some of the newer paving materials for their exceptional value in outdoor design, providing direction as well as pattern

living and architectural materials. He must consider marked contrast in value and color. He must visualize the constant change due to growth and season, and arrange for combinations which, as they change, will create an evolving space effect analogous to recent experiments in sculpture which preserve plastic and interspatial effects while in motion.

It might also be called visual music in which we have form stops of the more constant evergreen and architectural materials, and space and surface variations played in terms of deciduousness, bloom, texture, fall and spring coloring, and bark and branching characteristics. The greatest discipline is required to get spatial combinations of these effects because location, exposure, and soil conditions will alter the normal characteristics, but through the skilful use of plant materials it is possible to add the fourth dimension of motion to landscape design. It is easy! One meets very few architects who do not admit that they can do their own landscaping.

III

FREEDOM is the catch-word in landscape design. "Ah, wilderness!," murmurs the architect, as he looks at the panoramic view of "billowy foliage" through a thirty-foot expanse of glass with steel supports. "Complete wilderness," he echoes, and the stillness is broken only by the radio and the shrill train whistle at the town station . . . .

Despite the extreme discipline and knowledge in the arts and sciences which have brought the only freedom we have in our lives, the architect still nourishes the illusion that freedom and wilderness are synonymous in nature. He forgets that every product he uses in his buildings is completely "natural," but refined by industrial processes. If wilderness is such a beautiful thing, and offers such freedom, why not leave it undisturbed, and retreat to a perfectly "natural" cave?

His architectural mind, preoccupied with that which occurs within the shell of a building, can see no justification for design which has no compulsion of shelter. He forgets that the real purpose of design is to facilitate the activity of men. He forgets that although shelter has compulsion, there is no compulsion whatever about having architects to provide it. Shelter would occur with or without architects just as the landscape is humanized wherever man goes—with or without advice from the landscaper—but if skill and knowledge rather than primitive wilderness contribute to the freedom of men, both professions have ample justification in service.

MAJOR PLANT FORMS IN VALUES FROM LIGHT TO DARK

AUTHOR'S NOTE: *The following is a simplified form palette of plant materials which can be used in the northeastern United States. It is* not *intended as a list from which plants can be ordered without verification. The spelling of Rehder's "Manual of Cultivated Trees and Shrubs" has been followed and this table—prepared with the cooperation of Homer K. Dodge, of Wyman's Framingham Nursery, and Harlan P. Kelsey, of Kelsey's Highland Nursery — has been checked by Professor Ralph W. Curtis, of Cornell University.*

The forms *are not necessarily the only ones which the particular plants assume, but they are sufficiently common as listed to render the classification useful.*

The height *is that of maturity or where it will serve a landscape purpose from ten to twenty years.*

The values *are those which are sufficiently common to be worth while listing, but individual selections must be made. These values are considered much as pigments in watercolors, which change when used in relation to light, distance, and other pigments.*

No obscure plants are used, all of them can be moved, and tender plants are marked with asterisk.

COLUMNAR *(ratio approximately 8:1 except where otherwise noted)*

HEIGHT	LIGHT	MEDIUM	DARK
50′ plus	*Populus simoni fastigiata* *Populus nigra italica* *Quercus robur fastigiata*	*Acer saccharum monumentale*	*Abies fraseri* *Cryptomeria japonica lobbi**
40-50′	*Betula pendula fastigiata*		*Fagus sylvatica fastigiata* *Juniperus virginiana cannarti*
20-40′		*Thuja occidentalis*	***Thuja occidentalis douglasi pyramidalis***
12-20′	*Juniperus communis suecica*	*Crataegus oxyacantha splendens (6-1)*	*Juniperus virginiana schotti*
	Thuja occidentalis pyramidalis	*Ligustrum vulgare pyramidale*	*Chamaecyparis lawsoniana*
6-12′			*Taxus media (columnar form)*
3-6′	*Juniperus communis hibernica nana* *Ligustrum ibolium*		*Taxus cuspidata nana (upright form trimmed)*

HORIZONTAL *(effect of right angle opposition to vertical form)*

HEIGHT	LIGHT	MEDIUM	DARK
50′ plus		*Quercus palustris*	*Pinus strobus*
40-50′	*Nyssa sylvatica* *Pseudolarix kaempferi*	*Quercus palustris*	*Pinus strobus*
20-40′	*Crataegus mollis*		
12-20′	*Styrax japonica** *Viburnum prunifolium*	*Crataegus crus-galli* *Cornus florida and alternifolia*	
6-12′	*Evonymus alata*	*Ligustrum ibota regelianum* *Viburnum tomentosum*	
3-6′	*Juniperus chinensis pfitzeriana* *Lonicera morrowi prostrata*	*Diervilla trifida*	*Taxus cuspidata nana* *Juniperus sabina tamariscifolia*
1-3′	*Juniperus chinensis sargenti*	*Cydonia japonica pigmaea* *Juniperus horizontalis*	*Cornus horizontalis* *Taxus canadensis*

PENDULOUS *(as opposed to vertical and contrasted with horizontal)*

HEIGHT	LIGHT	MEDIUM	DARK
50′ plus	*Acer saccharinum wieri* *Salix elegantissima*		
40-50′	*Betula pendula dalecarlica* *Salix babylonica*		*Fagus sylvatica pendula*
20-40′	*Salix niobe* *Juniperis communis oblonga pendula*	*Morus alba pendula*	
12-20′	*Prunus subhirtella pendula*	*Cornus florida pendula*	
6-12′	*Forsythia suspensa*	*Rosa multiflora* *Rosa setigera*	*Tsuga canadensis pendula* *Tsuga canadensis Kelsey*
3-6′	*Cotoneaster salicifolia floccosa**	*Abelia grandiflora** *Berberis triacanthophora*	*Taxus baccata repandens** *Tsuga canadensis pendula*

BROAD AND SPREADING *(with trunks exposed through foliage)*

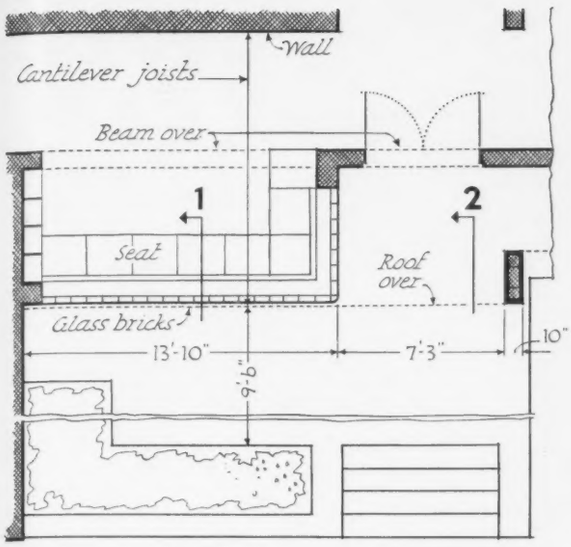
HEIGHT	LIGHT	MEDIUM	DARK
50′ plus	*Platanus occidentalis* *Gleditsia triacanthos* *Populus alba*	*Quercus alba* *Quercus macrocarpa*	*Gymnocladus dioeca* *Quercus rubra*
40-50′	*Cladrastis lutea* *Salix alba*	*Phellodendron sachalinense* *Celtis occidentalis*	*Pinus thunbergi* *Pinus strobus*
20-40′	*Malus (common apple)* *Magnolia soulangeana* *Sorbus decora* *Halesia tetraptera*	*Phellodendron chinense* *Chionanthus virginica* *Prunus avium*	
12-20′	*Caragana arborescens* *Amelanchier laevis* *Laburnum alpinum** *Albizzia julibrissin**	*Cornus florida* *Magnolia glauca*	*Pinus montana* *Cercis canadensis* *Viburnum sieboldi*
6-12′	*Enkianthus campanulata* *Myrica carolinensis* *Euonymus yedoensis*		*Pinus mugo mughus* *Rhododendron hybrids*
3-6′		*Cotoneaster divaricata* *Paeonia suffruticosa*	*Kalmia latifolia*

ROUND OR OVAL *(more solid with regular outline)*

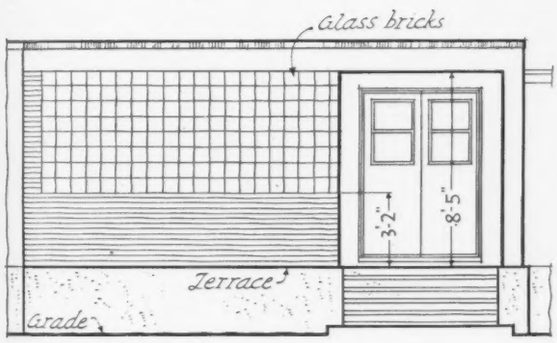
HEIGHT	LIGHT	MEDIUM	DARK
50′ plus	*Acer saccharum* *Acer pseudo-platanus* *Catalpa speciosa*	*Aesculus hippocastanum* *Prunus sargenti* *Fagus americana*	*Acer platanoides* *Tilia vulgaris* *Fagus sylvatica riversi*
40-50′	*Acer rubrum* *Betula alba*	*Tilia cordata* *Fraxinus lanceolata*	*Tilia euchlora* *Magnolia acuminata* *Carpinus betulus*
20-40′	*Sorbus aucuparia*	*Aesculus carnea* *Cercidiphyllum japonicum* *Crataegus mollis*	*Pinus montana*
12-20′	*Crataegus pruinosa* *Malus arnoldiana* *Malus floribunda* *Sorbus decora*	*Acer tataricum* *Cornus florida* *Syringa japonica*	*Evonymus europaea* *Cornus mas* *Ilex opaca**
6-12′	*Hibiscus syriacus* *Berberis vernae* *Lonicera fragrantissima**	*Magnolia stellata* *Berberis dielsiana*	*Calycanthus floridus* *Vaccinium corymbosum*
3-6′	*Thuja occidentalis globosum*	*Azalea poukanensis* *Evonymus alata compacta*	*Pinus mugus* *Ilex crenata microphylla*
1-3′	*Viburnum opulus nana*	*Berberis thunbergi minor*	*Taxus canadensis stricta*

IRREGULAR AND PICTURESQUE

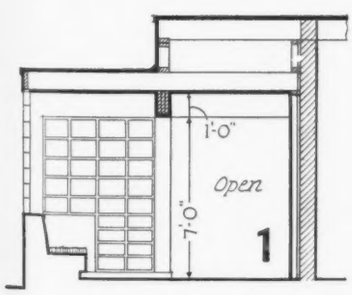
HEIGHT	LIGHT	MEDIUM	DARK
50′ plus	*Gleditsia triacanthos* *Quercus montana* *Gymnocladus dioica*	*Robinea pseudoacacia* *Acer rubrum*	*Pinus strobus* *Pinus nigra* *Fagus sylvatica pendula*
40-50′	*Ginkgo biloba* *Juglans regia* *Ailanthus glandulosa*	*Sassafras albidum* *Betula nigra*	*Pinus densiflora* *Pinus sylvestris*
20-40′	*Aralia spinosa*	*Malus theifera*	*Pinus thunbergi*
12-20′	*Halesia carolina* *Acer ginnala*	*Cydonia (common quince)* *Prunus americana*	*Oxydendrum arboreum* *Cercis canadensis*
6-12′	*Malus sargenti* *Rosa hugonis*	*Ilex verticillata* *Hamamelis vernalis*	*Taxus cuspidata (with pruning)*
3-6′	*Juniperus chinensis pfitzeriana*	*Cotoneaster dielsiana* *Berberis julianae**	*Cotoneaster divaricata* *Juniperis sabina*
1-3′	*Juniperus chinensis sargenti*	*Juniperus communis depressa plumosa*	*Thuja occidentalis "little gem"*



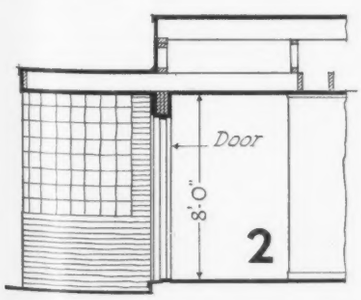
PLAN *Scale* $\frac{1}{8}$"=1'-0"



ELEVATION *Scale* $\frac{1}{8}$"=1'-0"

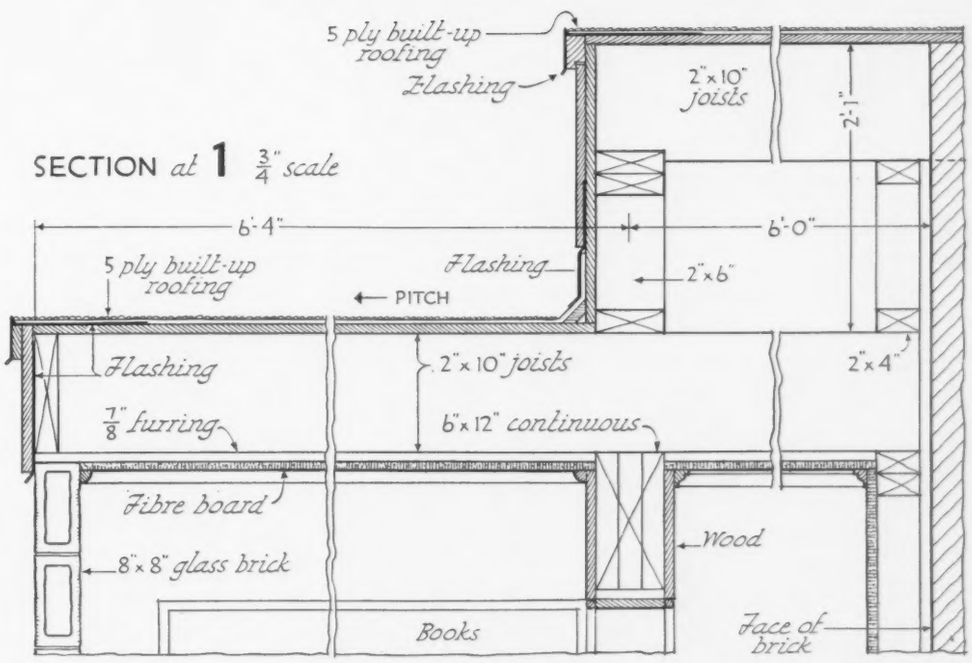


SECTIONS $\frac{1}{8}$" *scale*



ROBERT M. DAMORA

SECTION *at* **1** $\frac{3}{4}$" *scale*

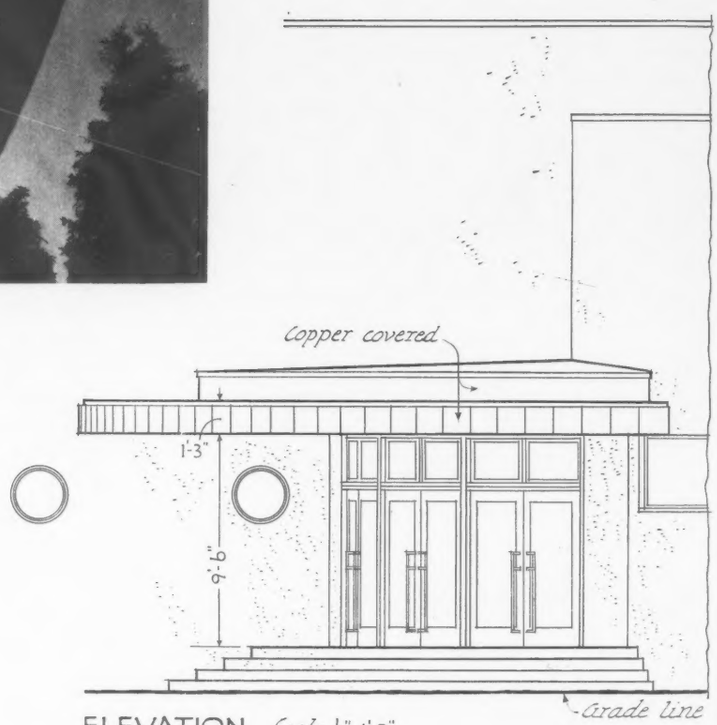


VICTORINE & SAMUEL HOMSEY . . . . . *Architects*

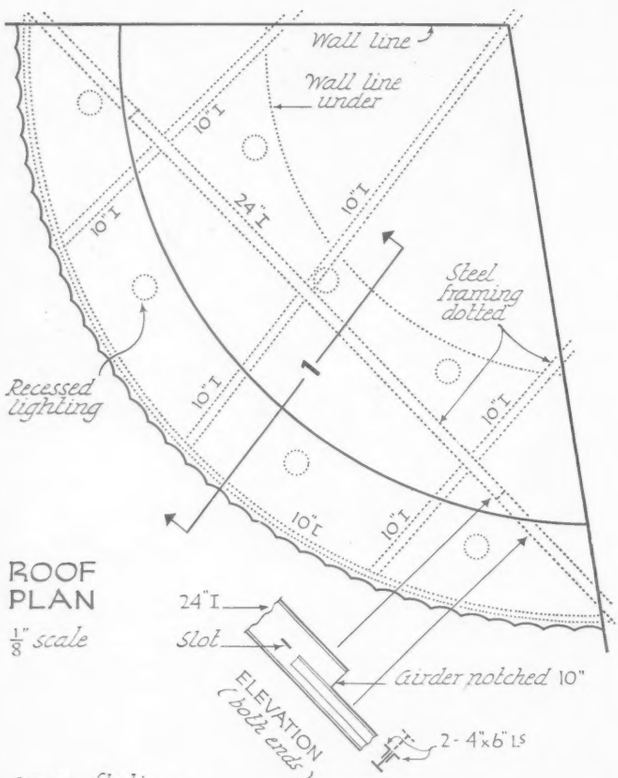
ROBERT M. DAMORA

LOUIS ALLEN ABRAMSON
Architect

SIDNEY FRIEMAN *Structural Engineer*

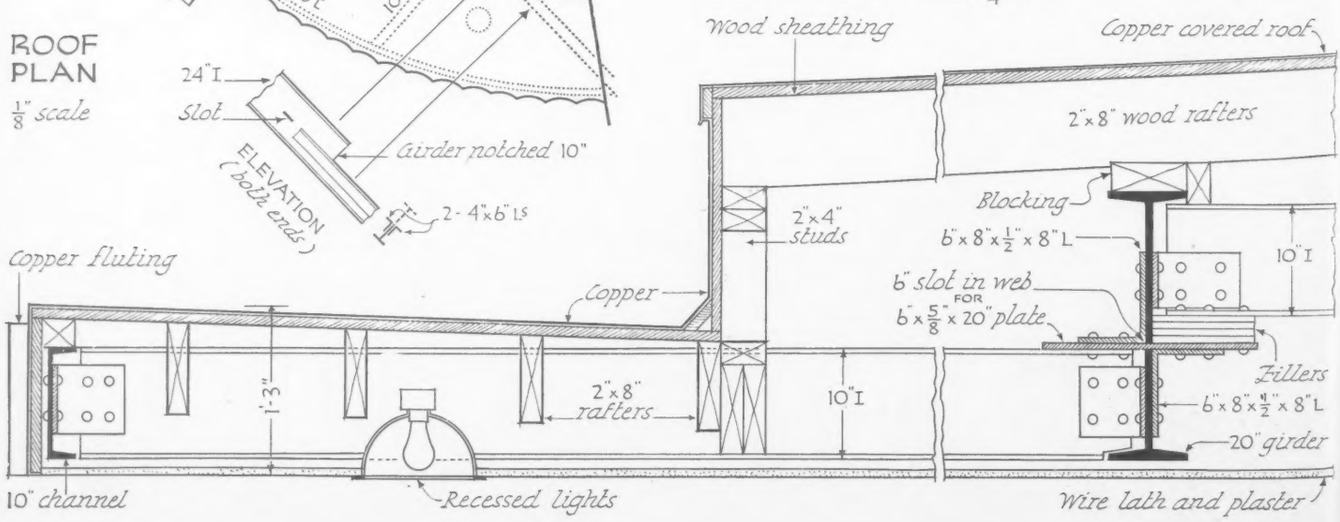


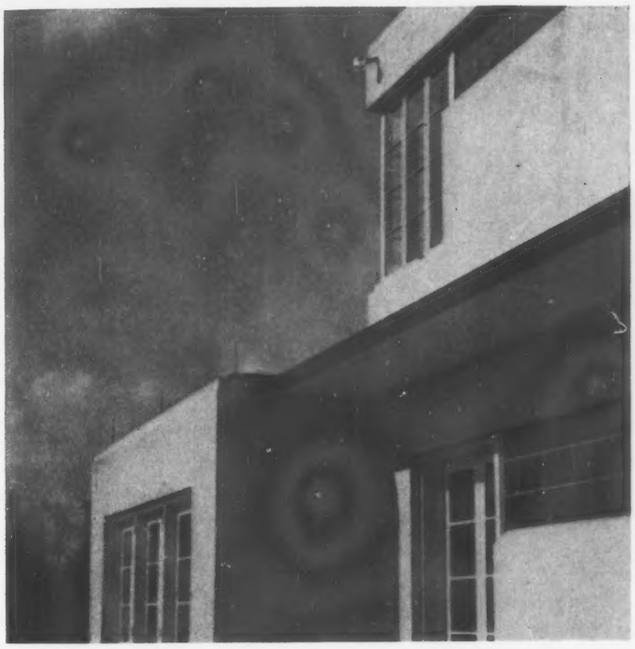
ELEVATION *Scale* $\frac{1}{8}$"=1'-0"

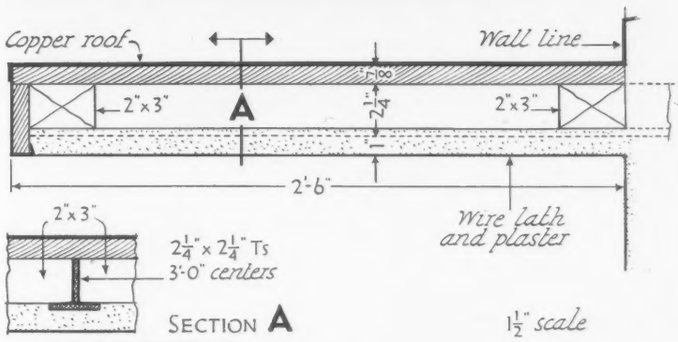


ROOF PLAN
$\frac{1}{8}$" *scale*

DETAIL *at* **1** *Scale* $\frac{3}{4}$"=1'-0"

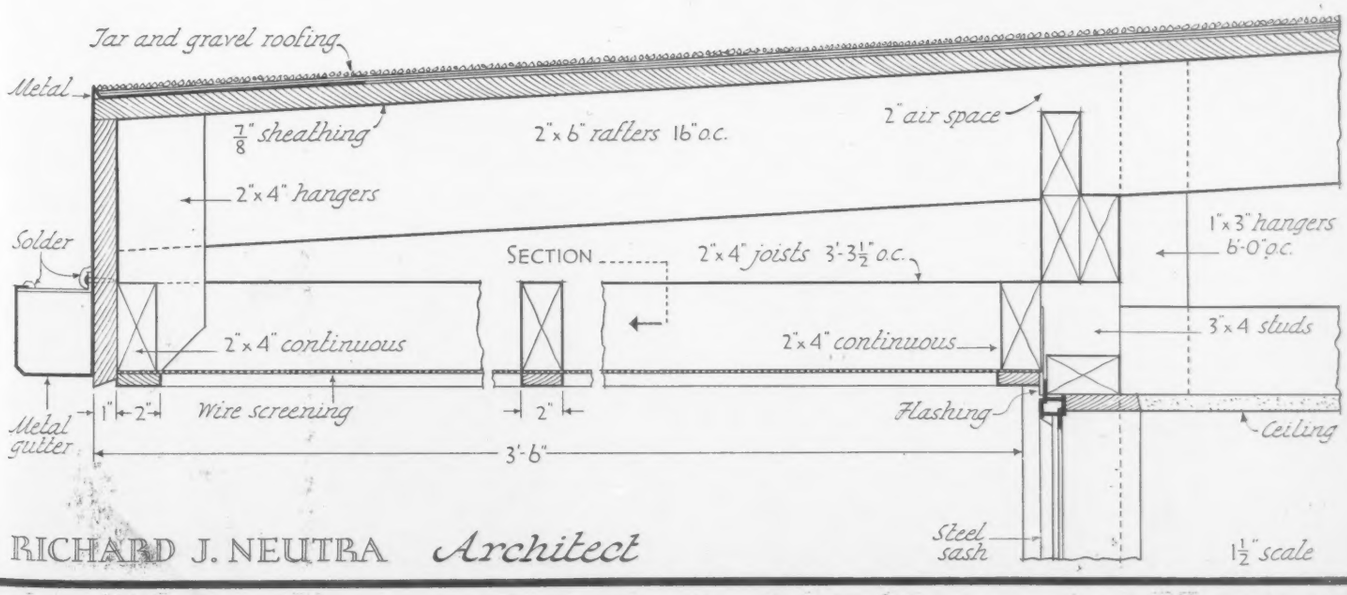




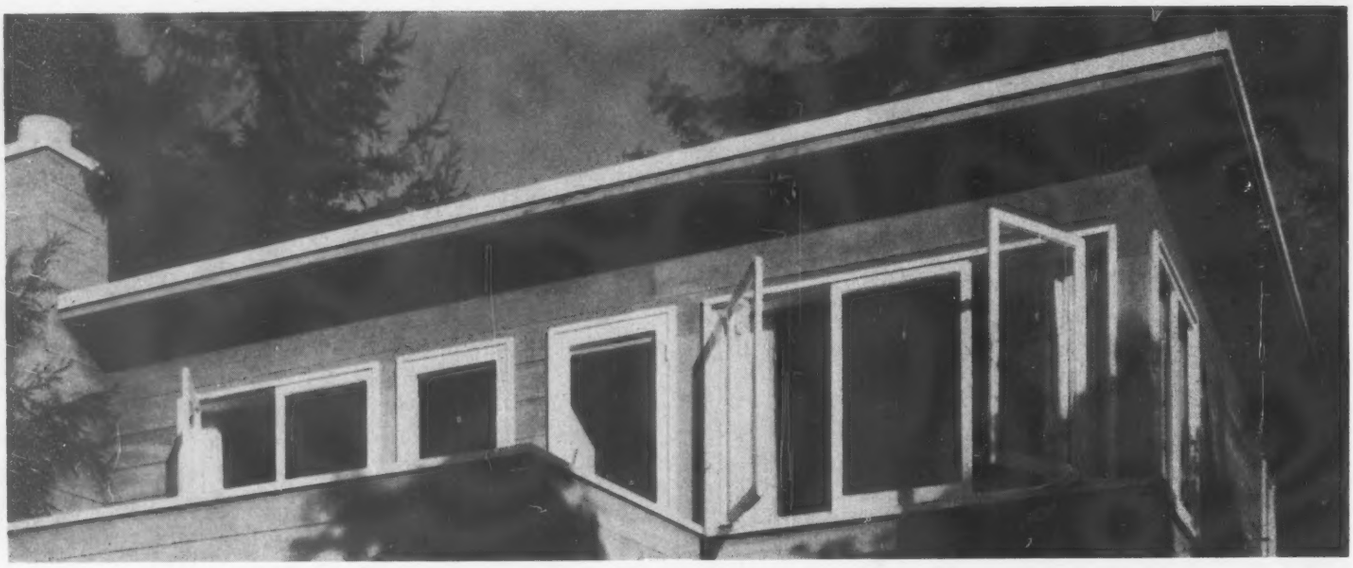


S. KENDRICK LICHTY *Architect*

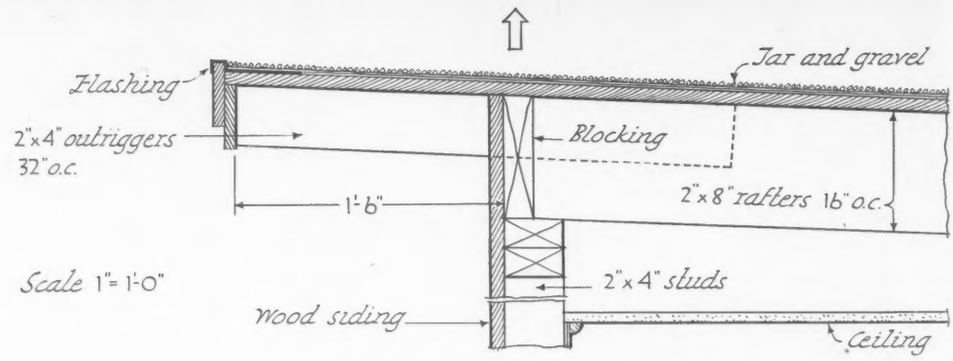
JULIUS SHULMAN

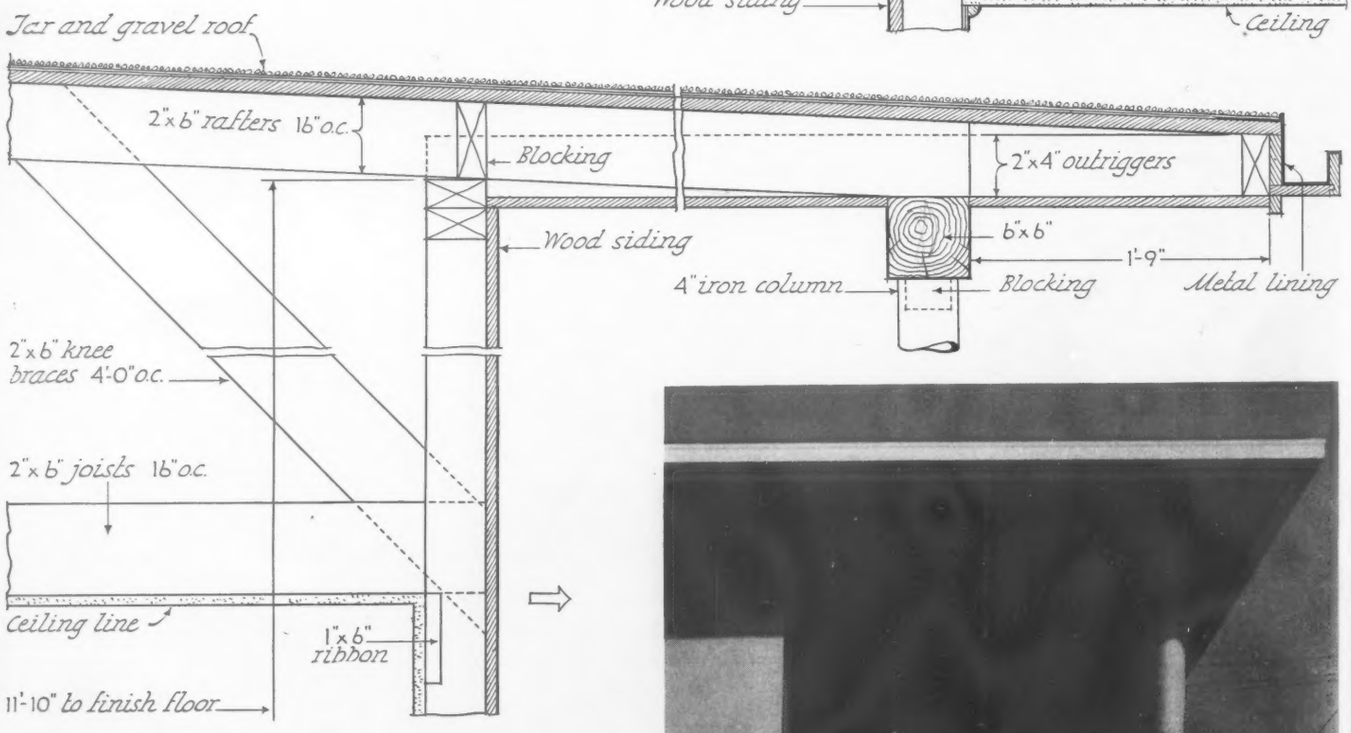


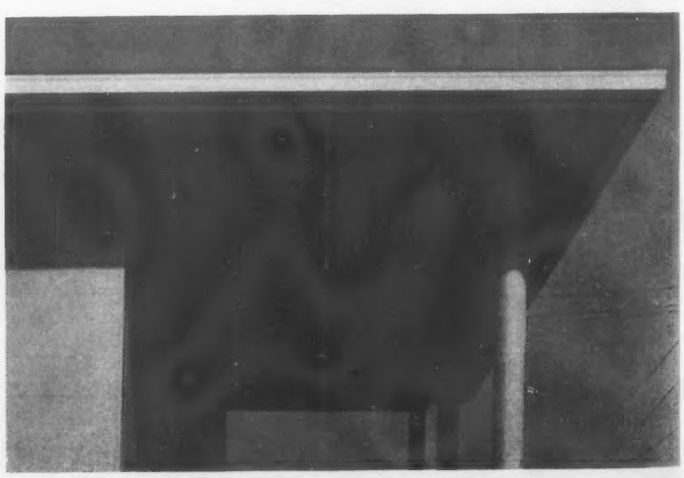
RICHARD J. NEUTRA *Architect*



Photos by ROGER STURTEVANT

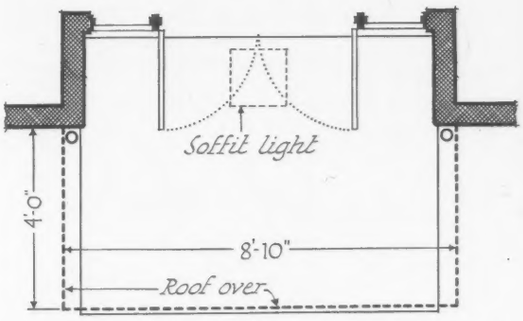






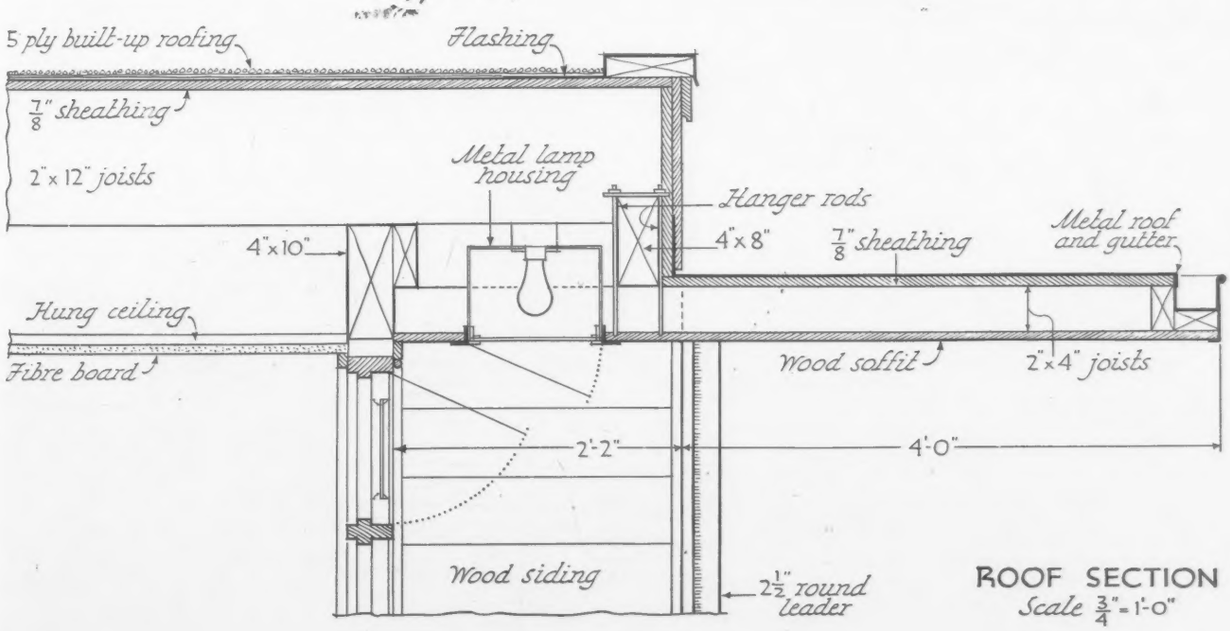
WILLIAM WILSON WURSTER
Architect

ELEVATION $\frac{1}{4}$" scale



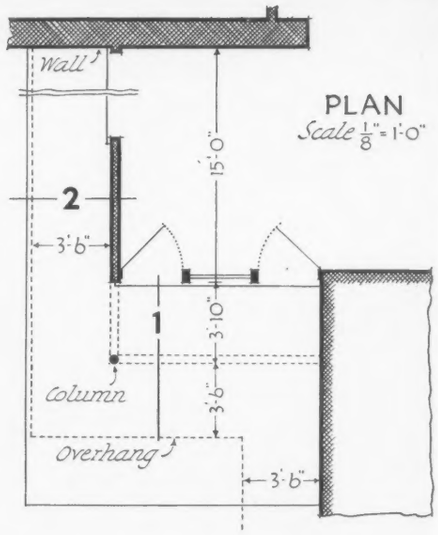
PLAN $\frac{1}{4}$" scale

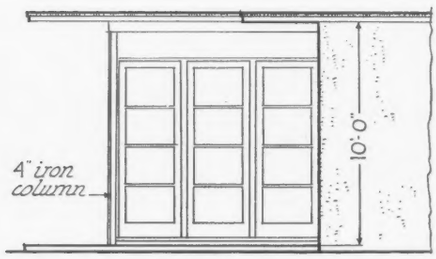
ROBERT M. DAMORA



ROOF SECTION
Scale $\frac{3}{4}$"-1'-0"

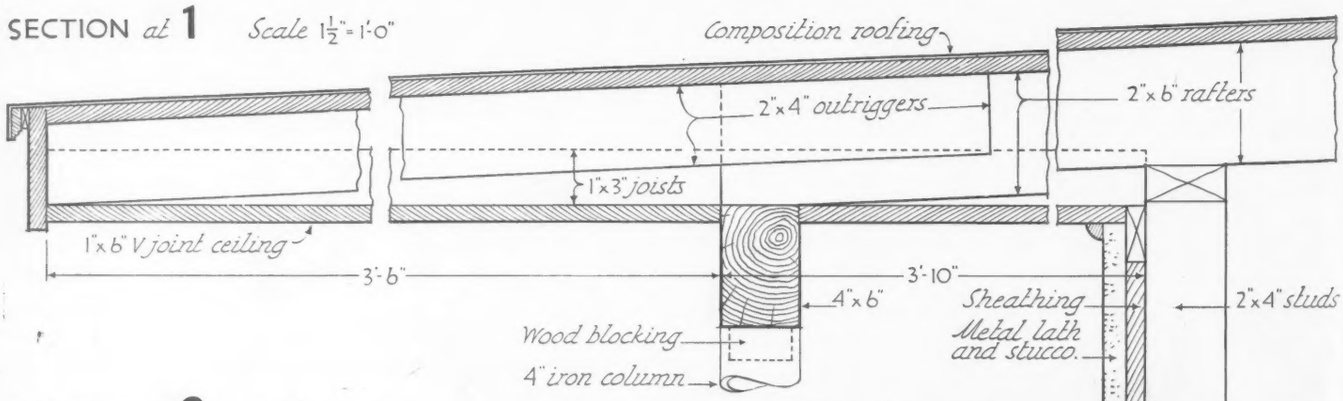
VICTORINE & SAMUEL HOMSEY . . . . . *Architects*



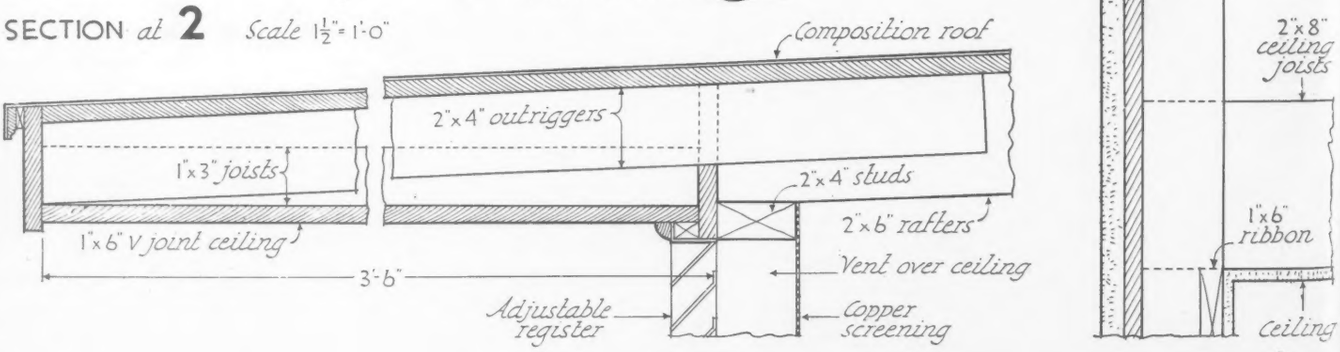


ELEVATION Scale 1/8" = 1'-0"

SECTION at 1 Scale 1½" = 1'-0"



SECTION at 2 Scale 1½" = 1'-0"



ELMER S. TUTHILL . . J. RUHTENBERG . . . . *Associate Architects*

IS ARCHITECTURE GOING TO THE BAUHAUS

THE GREAT ARCHITECT BARKS BITINGLY

BY EUGENE RASKIN

LOOKING over my shoulder at the neatly-typed title above, the Great Architect sneered audibly.

"My young friend," he said, "your talent for making bad puns is going to get you into trouble, if you're not careful. Have you no self-control? No restraint? The Bauhaus, for instance, is not a fitting subject for your disrespectful nonsense. Write about it seriously, or not at all."

"You're right," I admitted, contritely. "It's not fair to poke fun at a great creative idea, which, whatever its faults, has penetrated to the realities . . . "

"Poppycock!" His face began to take on that familiar purplish tinge. "The Bauhaus business, and all it stands for, is a menace to architecture. A menace to the profession! That's why it shouldn't be joked about . . . it's not funny, it's downright dangerous!"

I swung away from my typewriter resignedly, and settled back to endure the inevitable oration. There would be no peace, I knew, until it was off his chest. Besides, there was an almost-full decanter near his elbow.

"The Bauhaus idea," he began, striking a pose, "is nothing much more than a clever device by means of which certain gentlemen, who are better at blarney than building, assure themselves of lucrative and dignified careers."

"Just a minute!" I was shocked. "Whom do you mean?"

"Never mind. You know. These men . . . "

"But surely," I cried, "you don't include . . . "

"Stop interrupting me!" The Great Architect roared. "These men, I say, establish classes, to which students flock enthusiastically. Why? Because humans never really grow up. Deep down, we'd all like to play with pieces of paper, sticks, wire, glass—paste things together. But the responsibilities of adulthood prevent us from admitting the desire, even to ourselves. However, if you give people a chance to play, and at the same time feel they are Accomplishing Something—and what's more, you fill them full of high-sounding phrases and allow them the privilege of paying tuition fees—it's no wonder they come running!"

"See here," I remonstrated quietly. "Aren't you being a bit too sweeping? How about . . ."

"Look!" he thundered. Lifting a sheet of paper from my desk, he folded it deftly, slit it once or twice with a penknife, and set it down with a thump. It stood.

"There," the Great Architect waved dramatically, narrowly missing the decanter. "Self-supporting study in abstract form. Cut without waste. See what I mean? They take such fiddle-daddle, dress it up in brilliant wordage, publish it skilfully, exhibit it masterfully, and it goes over like bubble dancers at an engineers' convention."

"You know," I remarked, squinting at his creation. "That's not half bad. See how the texture takes the light."

"Eh? Oh, of course. Of course, there's much to be learned about the uses of materials this way." He shrugged. "But why surround it with hokum? Just so someone can be well paid for spouting it?"

"Are you referring to . . . "

"Now then," the Great Architect sailed on. "I could forgive this foolishness, as I forgive other human failings, if it weren't for its vicious effects. It threatens the future, the very existence of the art and profession I love." A corny quaver crept into his voice.

"Hear, hear," I murmured. He glanced at me suspiciously, then cleared his throat and poured himself a glass of the crimson wine. I followed his example with alacrity. Almost instantly, I began to feel better about the whole thing.

"While we architects," he continued, "lose ourselves in complex theorizing and the cutting up of paper dolls, industrial designers are

taking our work out from under our noses. They realize, just as we do, that people use not only buildings, but furniture, autos, ships, trains, planes, clothes, canned foods, fountain pens—and so on through the whole list of material goods. And instead of sitting around discussing it, they are out designing all these things, pioneering ahead of us, and making us rapidly obsolete."

"Oh, come now," I said, still warm from the wine. "It isn't as bad as all that."

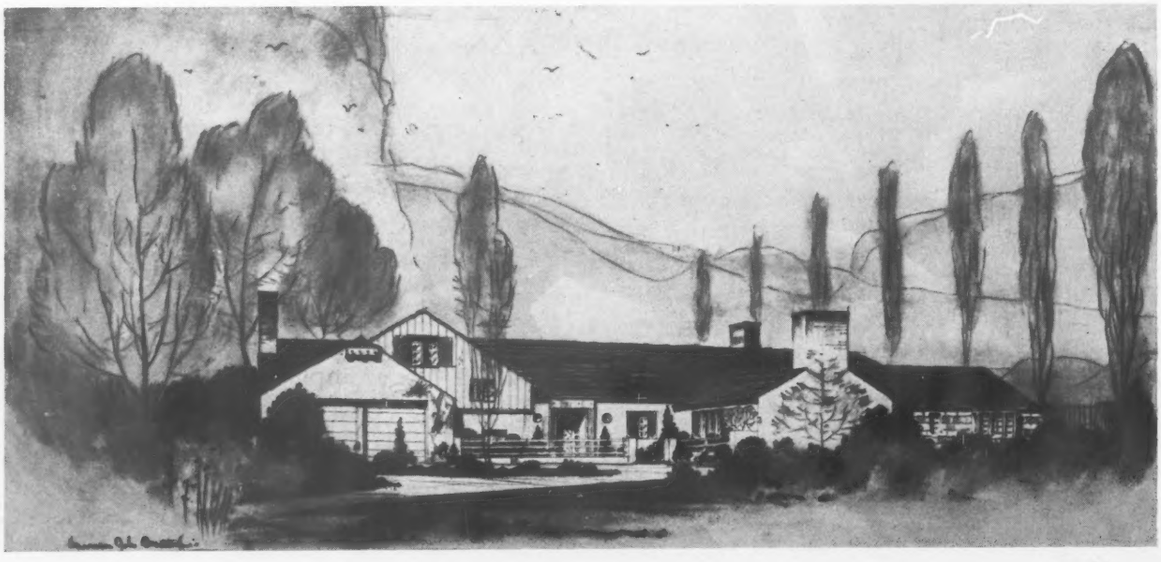
"No?" He smiled, grimly. "Just count up to yourself how many big jobs you know of, right now, that are being done by industrial designers, and that should have been landed by architects."

"Well," I said, at length. "The total is certainly impressive. But it hardly supports what you say about the Bauhaus idea. After all, some of our best industrial designers . . . "

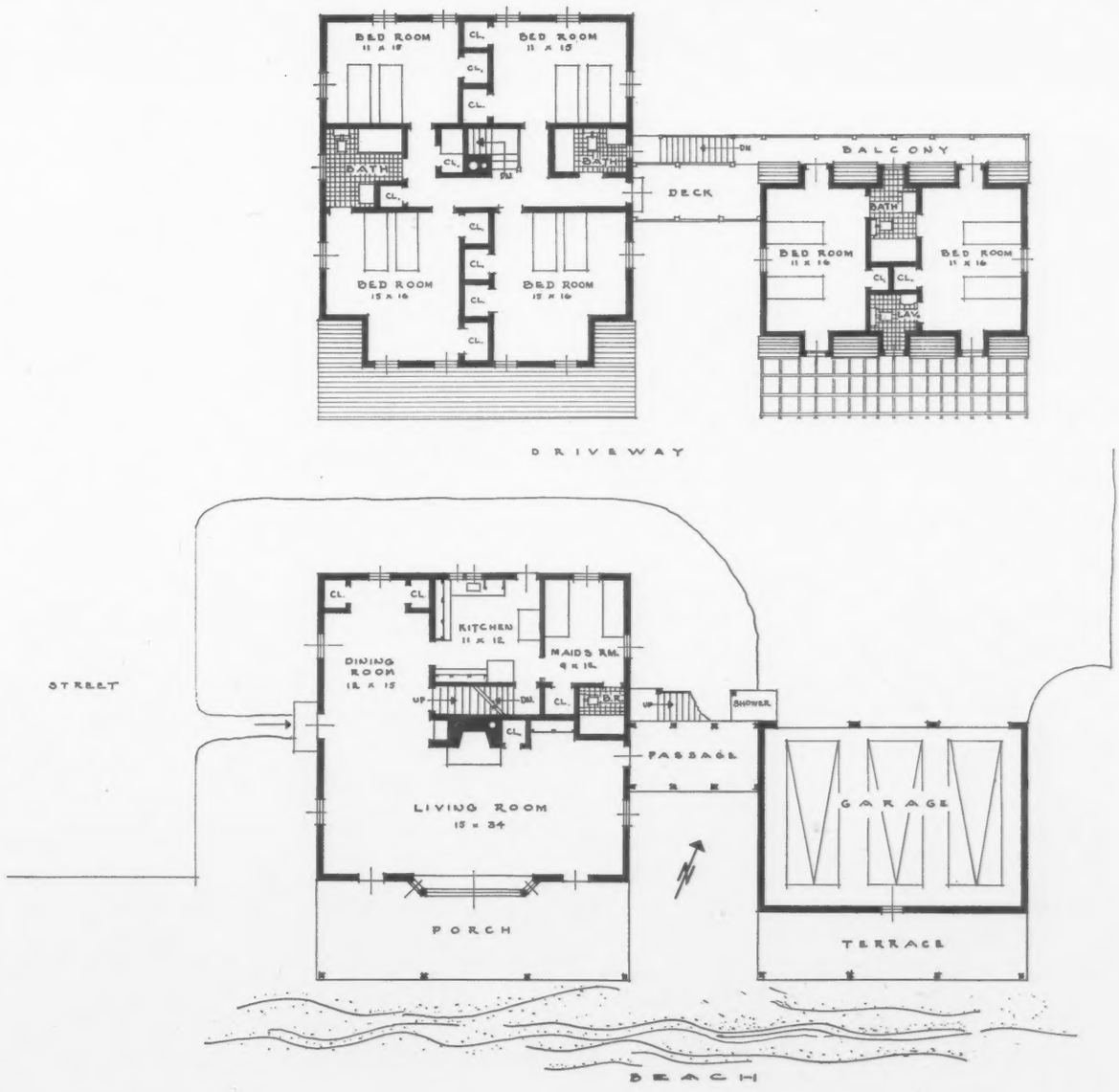
But the Great Architect wasn't listening. He had made a frame of his fingers, and was peering through the opening at his Study.

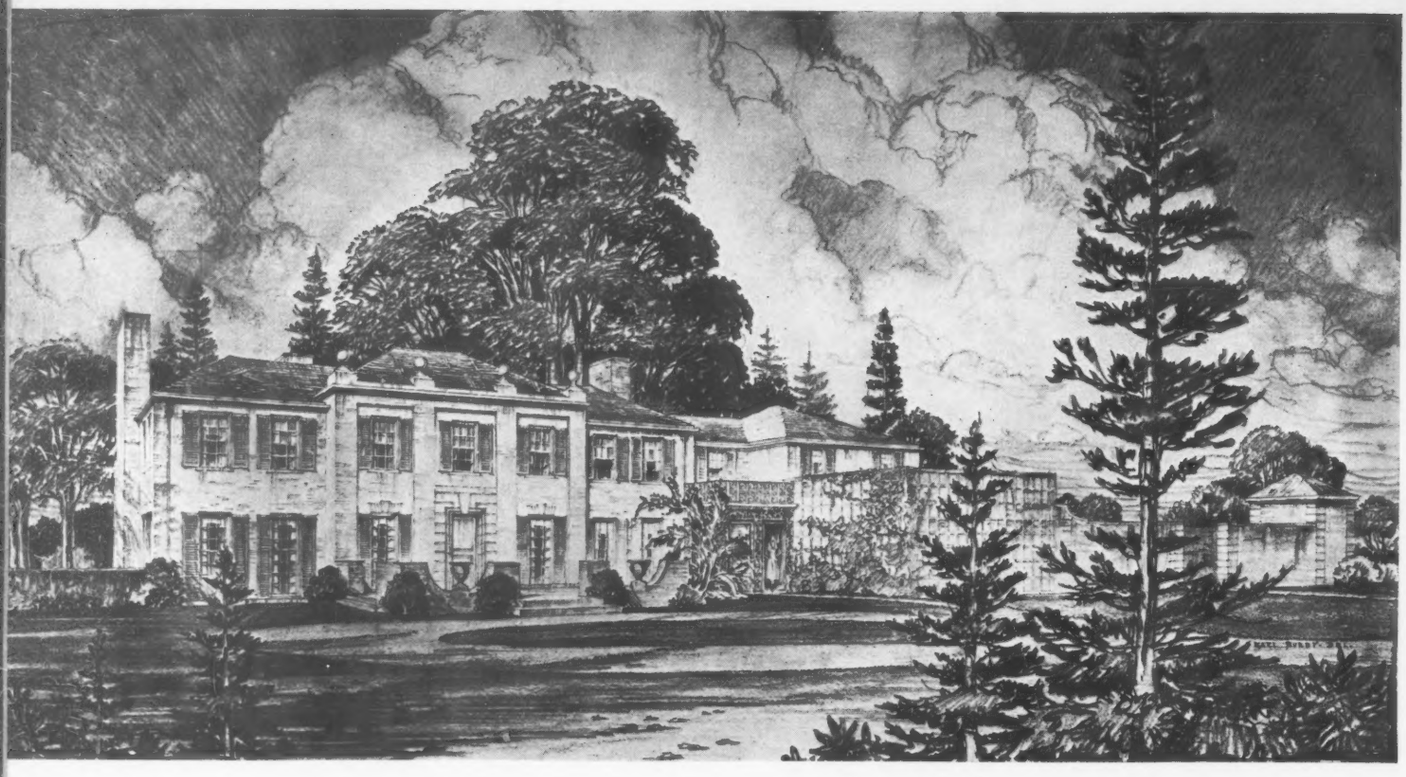
"By the way," he said, dreamily. "Have I told you about the design group I am planning? Perhaps you'd like to join. Experiments in pure form . . . open your eyes to a lot of things . . . "

Hospitality and comfort are expressed by the home of George Wellington Stoddard, A. I. A., of Seattle, as rendered here by his Associate, Harrison John Overturf. Plans of this "architect's house" were not available to accompany the rendering, which is characteristic of Overturf's work

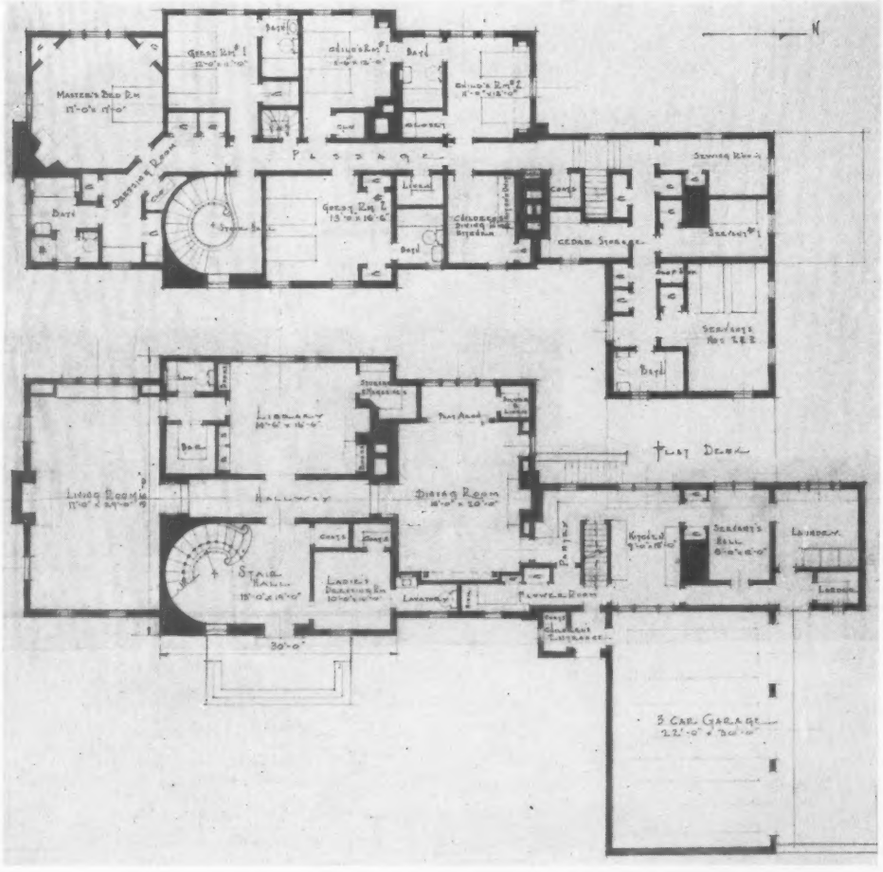


This compact and economical "House by the Sea" was designed by Savery, Scheetz & Gilmour, Architects, of Philadelphia, for summer use at Beach Haven, N. J.



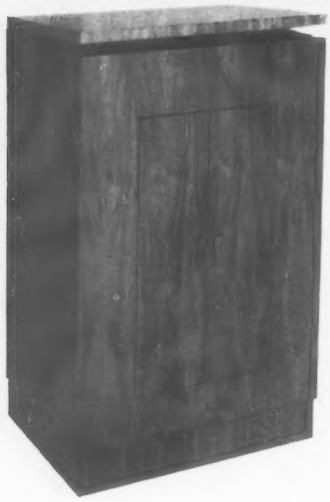


Spacious principal rooms, a special entrance for children of the house, and ample service areas are features of this house by George S. Steele, Architect, N. Y.



PENCIL POINTS DATA SHEETS

Prepared by DON GRAF, B.S., M.Arch.



THE DISREGARD OF THE OBVIOUS

The advertising fraternity can tell you exactly what the "average" American is like—what he wears, what he likes to eat, and even how he looks. Recently, there was an exhibit of radio sets in which the *pièce de résistance* was a nifty number selling for $600. This set provided channels for receiving absolutely all the drool and other disturbances which are loosed upon the ether, whatever the wavelength. A phonograph complemented the radio mechanism. Eight books of the world's greatest recorded music were included. The whole business was housed in a cabinet—and if *cabinet* is given its French pronunciation and connotation, it would not be inappropriate either as to the size of the enclosure or its character of design.

We got to wondering why some one has not undertaken to find out, as they

1939 AUTOMOBILE DIMENSIONS

Index No. **D 4 c** PLANNING

PENCIL POINTS DATA SHEETS PREPARED BY DON GRAF

SET 15 APR 1939

Make	*L.	*H.	*W.	*D.W.	*T.D.
Bantam	10′-4″	4′-7″	3′-8″	8′-1″	29′-6″
Bantam	10′-8″	4′-7″	5′-3″	8′-1″	29′-6″
Willys	●15′-0″	5′-5″	●5′-8″	10′-7″	●34′-0″
Overland	●15′-0″	5′-7″	●5′-8″	10′-7″	37′-11″
Ford	15′-7″	5′-8″	5′-10″	——	——
Chevrolet	15′-8″	5′-10″	6′-0″	●10′-1″	39′-0″
Hudson	15′-8″	5′-11″	6′-0″	11′-4″	35′-2″
Hupmobile "Skylark"	15′-10″	●5′-3″	6′-3″	11′-1″	——
Pontiac	15′-10″	5′-7″	6′-0″	11′-8″	39′-8″
Oldsmobile	15′-10″	5′-7″	6′-0″	11′-4″	40′-1″
Chevrolet	15′-11″	5′-10″	6′-0″	11′-7″	39′-6″
Ford	16′-3″	5′-8″	——	——	——
Studebaker	16′-4″	5′-7″	6′-1″	10′-6″	41′-4″
Pontiac	16′-5″	5′-7″	6′-2″	12′-0″	41′-2″
Packard	16′-5″	5′-8″	6′-2″	10′-5″	44′-0″
Oldsmobile	16′-6″	5′-9″	6′-3″	11′-8″	40′-4″
Studebaker	16′-9″	5′-7″	6′-1″	◈12′-2″	43′-10″
Nash-Lafayette	16′-11″	5′-11″	6′-2″	11′-5″	40′-8″
Graham	16′-11″	5′-8″	6′-3″	10′-6″	44′-10″
LaSalle	16′-11″	5′-6″	6′-2″	12′-0″	43′-8″
Buick "48"	17′-0″	5′-8″	6′-1″	◈12′-2″	44′-6″
Hudson	17′-3″	5′-11″	6′-0″	11′-4″	38′-9″
Hupmobile	17′-3″	5′-10″	6′-2″	11′-4″	50′-5″
Nash "Amb. 8"	17′-6″	5′-11″	6′-2″	11′-5″	44′-0″
Cadillac	18′-10″	5′-10″	◈6′-6″	12′-1″	48′-10″
Buick "90"	18′-10″	◈6′-0″	6′-5″	11′ 3″	◈52′-0″
Packard	◈19′-1″	5′-11″	6′-3″	10′-11″	51′-4″

**(L.) Length overall including bumpers. (H.) Height. (W.) Width with doors closed. (D.W.) Overall width of car with doors open. (T.D.) Turning diameter, i.e., diameter of smallest walled-in circle in which the car will make a complete turn. Dimensions are given to the nearest whole inch above fractions.*

Information has been supplied by the automobile manufacturers, thru whose courtesy they are hereby reproduced. Where makes are repeated, they refer to the largest and smallest models.

● = Smallest dimension in column. (Bantam excluded.)
◈ = Largest dimension in column.

RANGE OF SIZES FOR LAST FIVE YEARS†

Maximum length	1937	Cadillac (16)	20′-0″
Minimum length	1936	Willys-Overland	13′-6″
Maximum width	1938	Cadillac	6′-6″
Minimum width	1936	Willys-Overland	4′-10″
Maximum height	1938	Lincoln	6′-4″
Minimum height	1937	Cord	5′-0″
Maximum turning diameter	1935	Packard (12)	54′-9″
Minimum turning diameter	1938	Willys	34′-0″

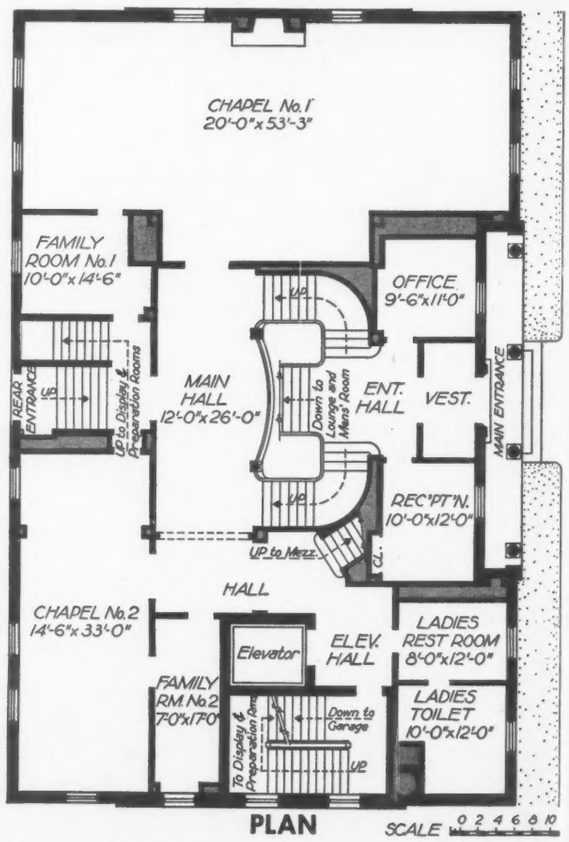
† For companies reporting, Bantam excluded.

FUNERAL HOME PLAN REQUIREMENTS

Index No. **D 19 a** PLANNING

PENCIL POINTS DATA SHEETS PREPARED BY DON GRAF

SET 15 APR 1939



All funeral homes, whether large or small, will make provisions for the following rooms:

1. Reception room
2. Office
3. One or more chapels (with organ)
4. One or 2 family rooms
5. Embalming room
6. Display room
7. Toilets
8. Coffin elevator (if needed)
9. Garage

The more elaborate establishments may also have lounging rooms, smoking rooms, rest rooms, and state or "slumber" rooms. Air conditioning is especially desirable in funeral homes.

did with the average American, just what kind of goof could possibly possess three such conflicting and inconsistent qualities as these:

1. He is wealthy enough to be able to spend $600 for a combination radio-phonograph.
2. He has sufficient love of good music to want to acquire phonograph records of the world's great operas.
3. He is so devoid of taste that he would give house-room to the ga-ga looking cabinet.

Sometime ago there was a piece in the paper, setting forth the opinions of interior decorators on the subject of radio cabinets. As we recall the article, it stated that no single class of people had ever so consistently and continuously offended the æsthetic sensibilities of discriminating people as the designers of radio cabinets.

For a refreshing and welcome relief from designs resembling the efforts of over-stimulated pastry cooks, it is a great pleasure to show two cabinets to indicate that all is not lost. On the left is the Wholesale Radio Company's *Lafayette* phonograph radio, and on the right is the Ansley Radio Corporation's *Dynaphone*. We suggest that some one strike a gold medal for each of these manufacturers.

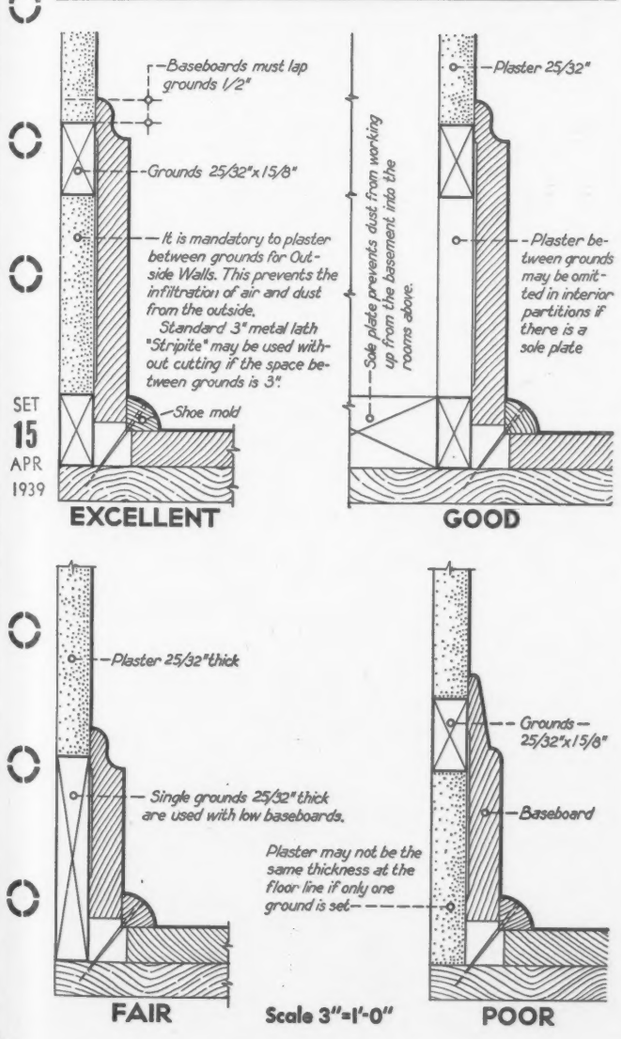
DON GRAF

PLASTER GROUNDS FOR BASEBOARDS

Index No. **F 10 k** CONSTRUCTION

PENCIL POINTS DATA SHEETS PREPARED BY DON GRAF

SET 15 APR 1939

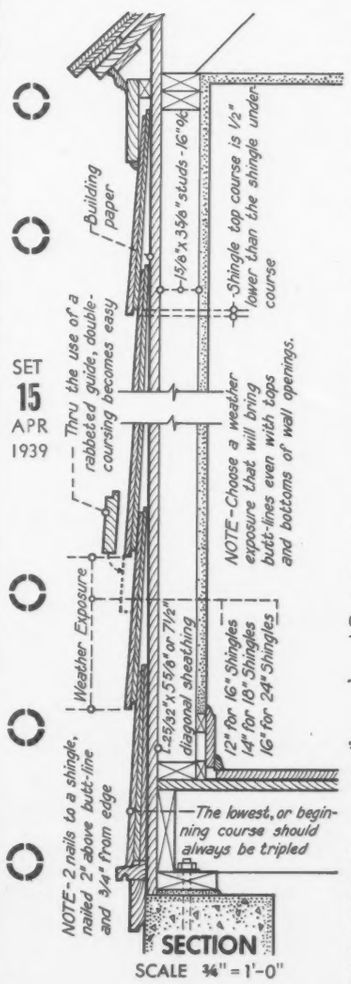

—Baseboards must lap grounds 1/2"
—Grounds 25/32"x15/8"
—It is mandatory to plaster between grounds for Outside Walls. This prevents the infiltration of air and dust from the outside.
Standard 3" metal lath "Stripite" may be used without cutting if the space between grounds is 3".
—Shoe mold
EXCELLENT
—Sole plate prevents dust from working up from the basement into the rooms above.
—Plaster 25/32"
—Plaster between grounds may be omitted in interior partitions if there is a sole plate
GOOD
—Plaster 25/32" thick
—Single grounds 25/32" thick are used with low baseboards.
FAIR
Plaster may not be the same thickness at the floor line if only one ground is set
Scale 3"=1'-0"
—Grounds—25/32"x15/8"
—Baseboard
POOR

WOOD SHINGLE SIDEWALLS

Index No. **F11f** CONSTRUCTION

PENCIL POINTS DATA SHEETS PREPARED BY DON GRAF

SET 15 APR 1939


Building paper
1-5/8"x3⅝" studs-16" o/c
Shingle top course is ½" lower than the shingle under course
Thru the use of a rabbeted guide, double-coursing becomes easy
NOTE-Choose a weather exposure that will bring butt-lines even with tops and bottoms of wall openings.
Weather Exposure
1-25/32"x5⅝" or 7½" diagonal sheathing
12" for 16" Shingles
14" for 18" Shingles
16" for 24" Shingles
The lowest, or beginning course should always be tripled
NOTE-2 nails to a shingle, nailed 2" above butt-line and ¾" from edge
SECTION
SCALE ¾" = 1'-0"

DOUBLE COURSES. Sidewalls covered with shingles that are given a very wide exposure create a strikingly attractive appearance. It is particularly adaptable to modern interpretation of the Colonial styles as well as lending individuality to the designer's treatment of other architectural periods. The wide exposure requires deep butt shadows to be effective—both being readily obtainable with standard shingles at surprisingly low cost.

APPLICATION. The weather exposure of shingles in single courses should not exceed half the shingle length minus ½". When double coursing is employed with "butt-nailing" much longer exposures become possible, greatly reducing the cost of application. Use 5d small head hot dipped zinc coated nails, 2 nails per shingle, placed near the edges of the shingles and not more than 3" above the butts.

The following table shows the reason why the double coursing is economical due to the greater allowable exposure of the shingles.

Length of Shingles (in inches)	*Exposure of Shingles (in inches)*	
	Single Course	*Double Course**
16"	6" to 7½"	8" to 12"
18"	6" to 8½"	8" to 14"
24"	8" to 11½"	12" to 16"

**Assuming exposed course is face or butt-nailed.*

GRADES. The exposed shingles in each course should be Grade 1 which are all clear Edge Grain shingles. The under courses may be Grade 2 or 3. When stained shingles are applied, unstained shingles may be used with entire satisfaction in the concealed courses.

THE MONOGRAPH SERIES
Records of Early American Architecture

RUSSELL F. WHITEHEAD, A. I. A., *Editor*
FRANK CHOUTEAU BROWN, A. I. A., *Associate Editor*

Volume XXV · Number 2

ENTRANCE HALL AND STAIRWAY
JABEZ WILDER COTTAGE—1690—HINGHAM, MASSACHUSETTS

[17]

ENTRANCE HALL AND STAIRCASE
SARAH ORNE JEWETT HOUSE—SOUTH BERWICK, MAINE
BUILT BY JOHN HAGGINS IN 1774

[18]

ENTRANCE HALLS *and* STAIRWAYS
ILLUSTRATED *by* EXAMPLES *from* MASSACHUSETTS *and* CENTRAL NEW ENGLAND

Photographs by Arthur C. Haskell

THE ENTRANCE hallway was a refinement in living to which most of the early emigrants to the New World had been unaccustomed in their own homeland. Those leaving the south of England had previously been living in survivals from mediæval culture, principally in the farmsteads and village cottages, of which many picturesque examples have survived to the present day. Their picturesqueness, however, did not provide even the elemental comforts and conveniences to which every individual believes himself entitled today. Even the smaller Manor House plan did not always provide any Hall, and when it did it took then the form rather of a general living space than any area intended only for circulation and privacy in connecting the various residential elements of the family menage. In Louis XIV's palace at Versailles, the further bedrooms could only be reached by passing through all those between.

In 1600 the mass of English architecture was of Tudor or earlier date. It was to be a dozen or more years before Inigo Jones returned from Italy, with his 1601 edition of Palladio crowded with his own marginal annotations; and a good many more years were to elapse before the newer style of open plan was to become familiar, even to the wealthier and more sycophantic courtiers of Henry VIII and Elizabeth; and more years still before it began to affect in the slightest the types of common dwellings with which those who first settled the Massachusetts Bay Colony were familiar. Along our southern coast, to be sure, the plans and appearance of the larger houses began much earlier to disclose that they were in some small part expressive of the new fashions in the amenities of living that were permeating the newer and better dwellings of England, especially those of early Georgian date.

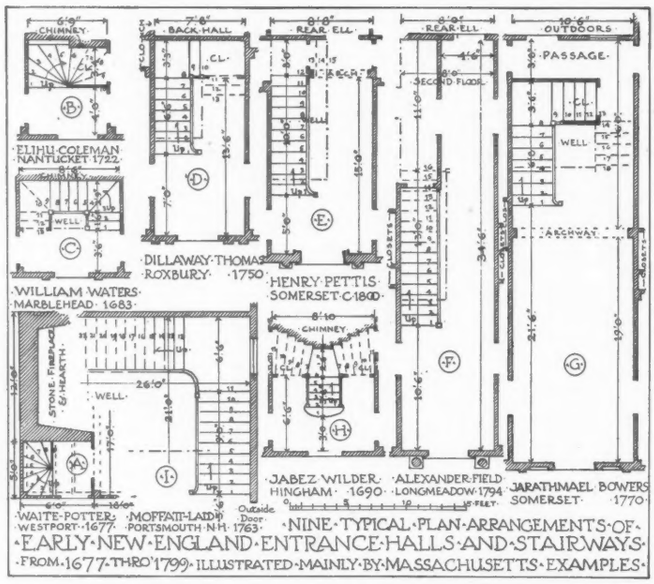
Neither did the English climate require much shelter for these cottage dwellers, save from the rain; consequently, the outer entrance door usually opened directly into one end of the general living, eating, and cooking room of the small cottage. It was this one general room that the earliest homes in New England first reproduced, with a large fireplace for cooking and heating. A large scullery opening off this room and another space to provide warm sleeping quarters for the family were the first additions. The space under the roof long remained an undivided attic for the sleeping quarters of children or servants, almost to the present century, and many examples are still to be found in outer New England.

But the rigorous climate of the northern colonies soon forced the settlers to adopt different details of arrangement than they had found livable in the Tudor dwellings of old England. So, to protect the occupants of the "Hall" or "Fire Room" from drafts when the entrance door was opened, this was removed behind the corner of the large fireplace (A, page 20), with an inner partition and door to make a "vestibule," out of the other side of which a ladder or steep winding stair—which otherwise might be placed in one corner of the "Fire Room"—might rise to the low attic story above. When the house was enlarged by adding another room beyond the fireplace, as at B, page 20 (or in the Haskell House, Volume XXV, Number 1), we have the typical early "two-room" house plan. A more fully developed Entry-Hall may be seen at C (and on Page 68, Volume XIX, Number 5). The very restricted floor area of this Entry-Hall was often later enlarged, generally in the early years of the Nineteenth Century, by moving the front door and Hall wall forward, outside the main wall of the dwelling, as in the Judge Holten House, page 21 (and Volume XXIV, Number 5).

As the houses became more definitely two-story-and-attic structures, the Hall and stairway increased in size and importance; a development that became even more definite when the plan increased to four rooms upon each floor. Then such arrangements as at D and

E, page 20 (and page 78, Volume XIX, Number 5) came into general use, but were soon superseded by the more spacious types F and G, page 20, and the decorative forms that they assume in the photographs on other pages in this issue. Among the earlier examples of plan D, is the Joseph Peaslee Hall at Rock Village, 1675 (page 78, Volume XIX, Number 5); from which simplicity an advance was shortly made to some of the more spacious and pretentious treatments shown in this issue.

The staircase now had usually two instead of the earlier three runs, and the first was made much the longer, in order to obtain headroom, usually for passage purposes to other parts of the house plan, under the cross landing or last run at the rear end of the open Hall. Among the most dignified of these presentations was the Entrance Hall with underarch, and main cross landing with its Palladian window - door opening at that level onto the rear staircase, which was the one that then continued to the third story, leaving the main staircase to end upon the second story level and so connect only with the principal front second story rooms. A fine example of this arrangement was in the Benjamin Hall, Jr., House, at Medford: one of three Hall family houses existing since 1785, side by side, until the summer of 1938, when this particular building succumbed to commercial pressure and was unfortunately demolished! (Page 20)



That varied decorative treatments of this landing doorway connecting the front and rear halls were frequently found in Massachusetts, is indicated by the two other examples, both from Salem, that appear side by side on page 25. Of course, this is merely another expression of the graceful and impressive arched window motive, that often appears in the rear house wall, to open on the main staircase hall landing, as in the Jeremiah Lee Mansion, 1768, in Marblehead (pages 64 and 72, Volume XIX, Number 5), and elsewhere.

With the fully-developed two-room-deep long Entrance Hallway, G, page 20, a large archway

Courtesy Halliday Historic Collection

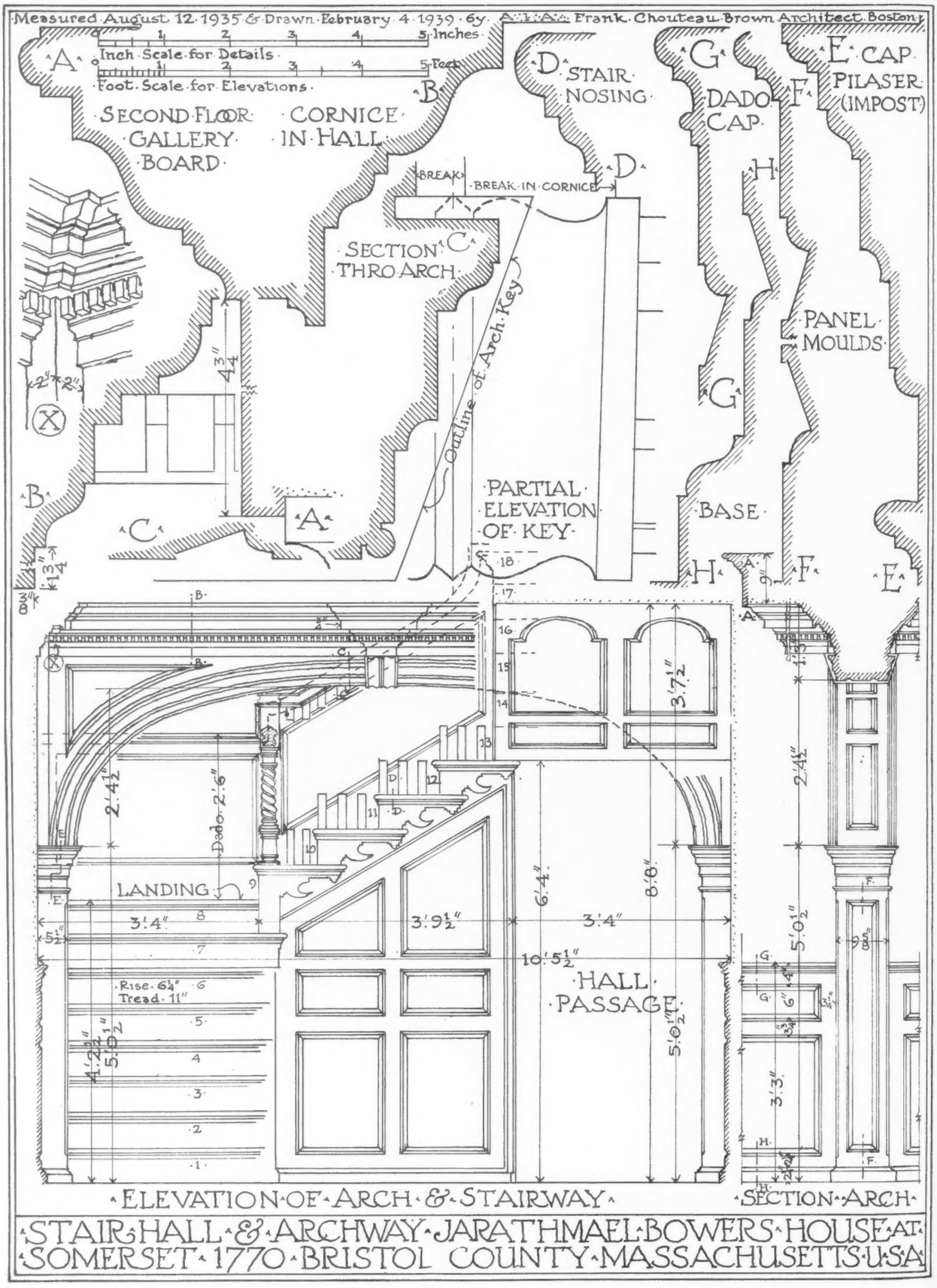
ENTRANCE HALL, ARCHWAY, AND STAIRCASE
COL. ISAAC ROYALL HOUSE—c.1733—MEDFORD

[20]

SIDE VIEW OF ENTRANCE VESTIBULE
JUDGE SAMUEL HOLTEN HOUSE—1670—DANVERS, MASSACHUSETTS

Courtesy Soc. Pres. N. E. Antiquities

ENTRANCE HALL—SHOWING CROSSBEAM AND STAIRCASE
TOBIAS LEAR HOUSE—c.1740—PORTSMOUTH, NEW HAMPSHIRE


Measured August 12 1935 & Drawn February 4 1939 by A. I. A. Frank Chouteau Brown Architect Boston
1 Inch Scale for Details
1 Foot Scale for Elevations
SECOND FLOOR GALLERY BOARD
CORNICE IN HALL
SECTION THRO ARCH
BREAK
BREAK IN CORNICE
Outline of Arch Key
PARTIAL ELEVATION OF KEY
STAIR NOSING
DADO CAP
CAP
PILASTER (IMPOST)
PANEL MOULDS
BASE
LANDING
Rise 6¼"
Tread 11"
Dado 2'6"
HALL PASSAGE
ELEVATION OF ARCH & STAIRWAY
SECTION ARCH
STAIR HALL & ARCHWAY JARATHMAEL BOWERS HOUSE AT SOMERSET 1770 BRISTOL COUNTY MASSACHUSETTS U.S.A.

[22]

crossing the Hall near the center of its length, and recessing the staircase within a further Hallway, makes its appearance. In its earliest form, it may be seen as a simple exposed structural girder, crossing the ceiling of the hall at this location, in the Tobias Lear House, c.1740, at Portsmouth, N. H. This is its simplest manifestation. In the region round about Portsmouth there are at least a dozen varied examples of the large Hall cross-archway, with a few others in Vassall, in 1746, to the earlier house, built before 1686, by John Vassall in Cambridge (page 68, Volume XXIII, Number 5), with its individual use of an outlined bracket form, in place of a capital, over a very flat wall pilaster from above which the elliptical arch springs; and the somewhat similar arrangement in the Entrance Hallway of the Col. Isaac Royall House, c.1733, at Medford, where the bracket is more elaborate and the pilaster is given a bolder projection.

Courtesy His. Am. Bldgs. Survey

VIEW THROUGH ENTRANCE HALL ARCHWAY TOWARD STAIRCASE
JARATHMAEL BOWERS HOUSE—1770—SOMERSET, MASSACHUSETTS

Maine, in Massachusetts, and also in Rhode Island.

Accompanying examples are the Jewett House, 1774, in South Berwick, Me.; the Bowers House, 1770, in Somerset; the Captain Gregory Purcell ("John Paul Jones") House, 1757-59, in Portsmouth, N. H.; and the Nickels-Sortwell House, 1807-8, in Wiscasset, Maine. Two other examples near Boston are the cross-Hall arch in the portion added by Maj. Henry

A radically different and unusual plan is shown at H, page 20, from the Jabez Wilder Cottage, at Hingham, 1690. Here the staircase starts upward from just inside the entrance door and in the middle of the Hallway, with a flight which divides and rises at right and left against the receding face of the chimney, to end at the very doorways of the two rooms under its "rainbow" roof. Finally, at I, page 20, is the plan

Courtesy His. Am. Bldgs. Survey

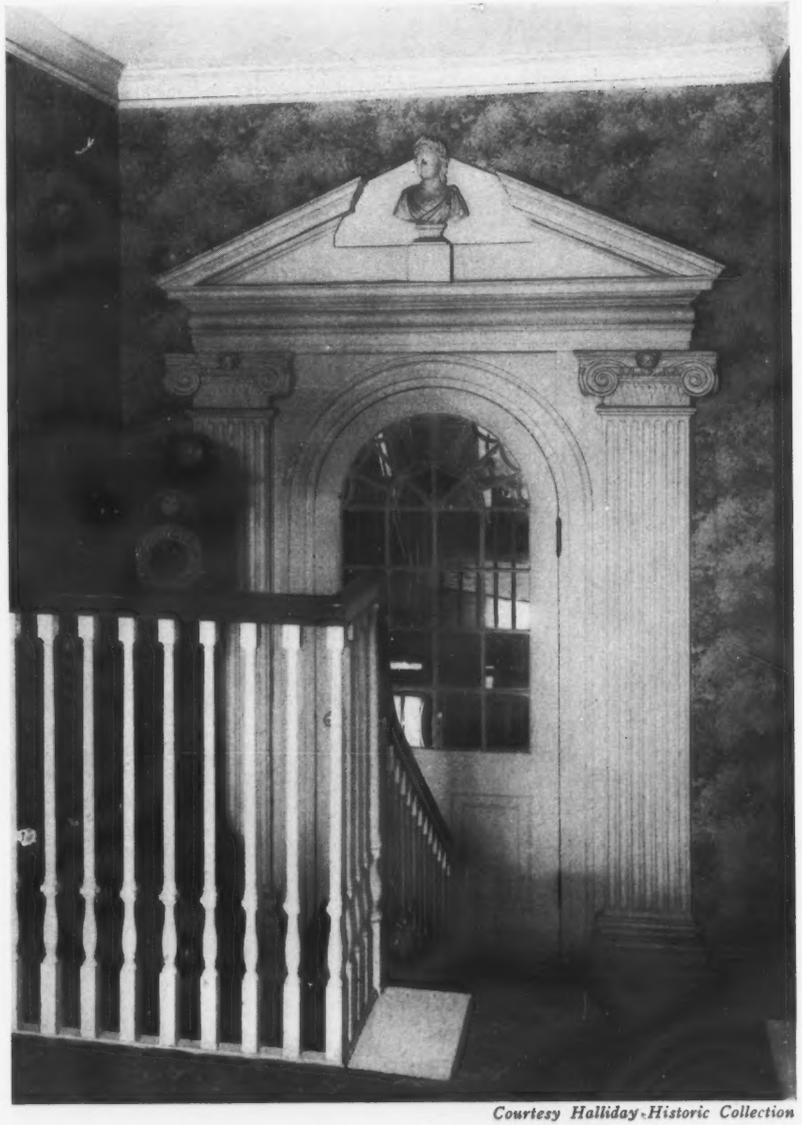
FIRST STORY HALL, UNDER-ARCH, AND STAIR

Courtesy His. Am. Bldgs. Survey

PALLADIAN DOOR-WINDOW TO REAR HALL ON LANDING

BENJAMIN HALL, JR., HOUSE—1785—MEDFORD, MASSACHUSETTS

DOORWAY TO REAR HALL—FIRST LANDING
JOSHUA WARD HOUSE—c.1765—SALEM, MASSACHUSETTS



Courtesy Halliday Historic Collection

DOORWAY TO REAR HALL—INTERMEDIATE LANDING
ASSEMBLY HOUSE—1782—SALEM, MASSACHUSETTS

Courtesy His. Am. Bldgs. Survey

FIRST STORY HALL, UNDER-ARCH, AND STAIR

Courtesy His. Am. Bldgs. Survey

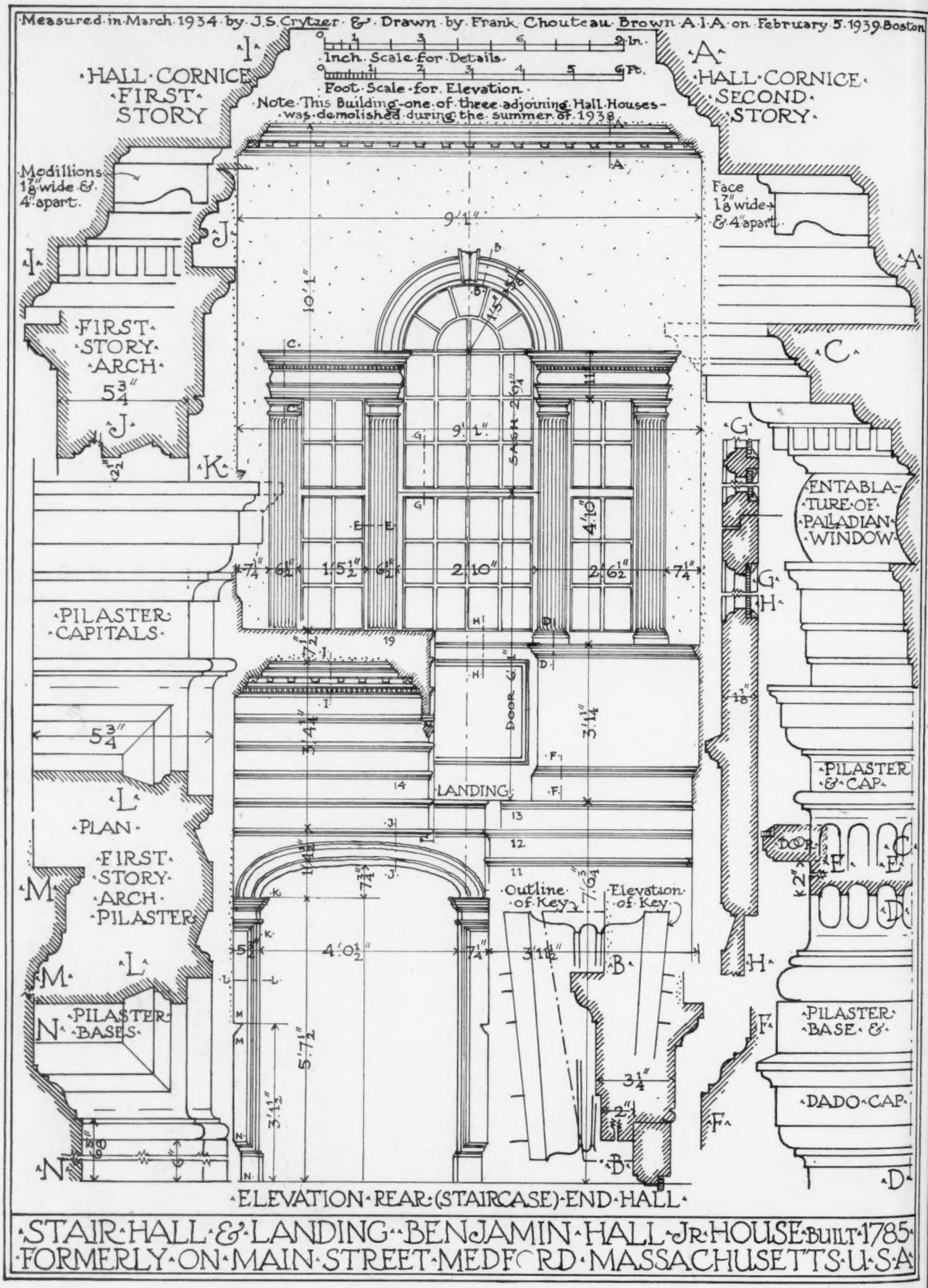
PALLADIAN DOOR-WINDOW TO REAR HALL ON LANDING

BENJAMIN HALL, JR., HOUSE—1785—MEDFORD, MASSACHUSETTS

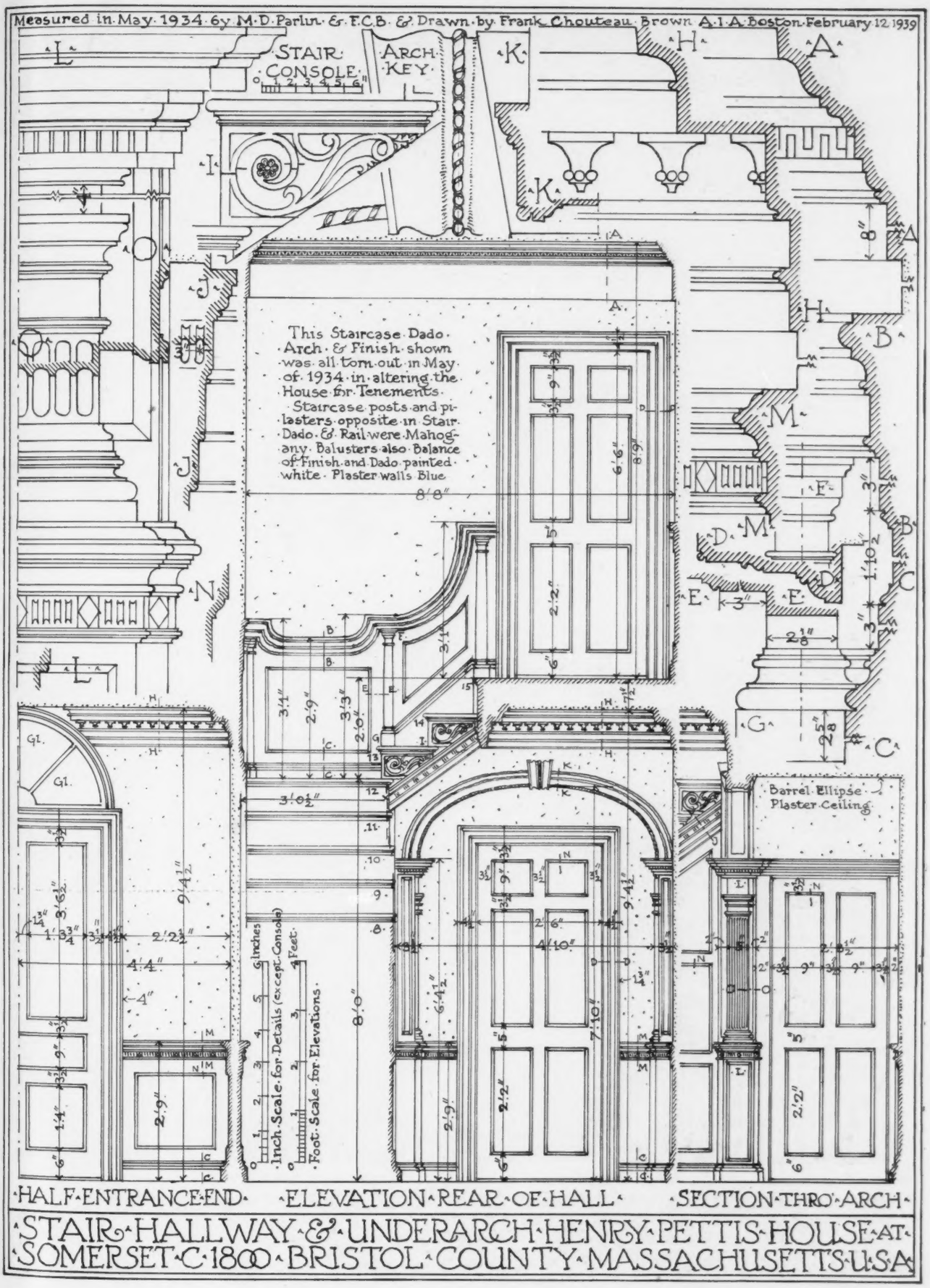
DOORWAY TO REAR HALL—FIRST LANDING
JOSHUA WARD HOUSE—c.1765—SALEM, MASSACHUSETTS

Courtesy Halliday Historic Collection

DOORWAY TO REAR HALL—INTERMEDIATE LANDING
ASSEMBLY HOUSE—1782—SALEM, MASSACHUSETTS


Measured in March 1934 by J.S. Crytzer & Drawn by Frank Chouteau Brown A.I.A. on February 5. 1939. Boston
Inch Scale for Details
Foot Scale for Elevation
Note This Building-one of three adjoining Hall Houses-was demolished during the summer of 1938
HALL CORNICE FIRST STORY
HALL CORNICE SECOND STORY
Modillions 1⅞ wide & 4" apart.
Face 1⅞ wide & 4" apart.
FIRST STORY ARCH
PILASTER CAPITALS
ENTABLATURE OF PALADIAN WINDOW
PLAN
FIRST STORY ARCH PILASTER
PILASTER BASES
LANDING
Outline of Key
Elevation of Key
PILASTER & CAP.
PILASTER BASE &
DADO CAP.
ELEVATION REAR (STAIRCASE) END HALL
STAIR HALL & LANDING BENJAMIN HALL JR. HOUSE BUILT 1785
FORMERLY ON MAIN STREET MEDFORD MASSACHUSETTS U.S.A.

[26]


Measured in May 1934 by M.D. Parlin & F.C.B. & Drawn by Frank Chouteau Brown A.I.A. Boston February 12 1939
STAIR CONSOLE
ARCH KEY
This Staircase Dado Arch & Finish shown was all torn out in May of 1934 in altering the House for Tenements
Staircase posts and pilasters opposite in Stair Dado & Rail were Mahogany. Balusters also Balance of Finish and Dado painted white. Plaster walls Blue
Barrel Ellipse Plaster Ceiling
Inch Scale for Details (except Console)
Foot Scale for Elevations
HALF ENTRANCE END
ELEVATION REAR OF HALL
SECTION THRO ARCH

STAIR HALLWAY & UNDERARCH HENRY PETTIS HOUSE AT SOMERSET C 1800 BRISTOL COUNTY MASSACHUSETTS U.S.A.

[27]

from "Colonial Architecture in New England"

ENTRANCE HALL AND STAIRCASE
MOFFATT-LADD HOUSE—1763—PORTSMOUTH, NEW HAMPSHIRE

HALLWAY LOOKING TOWARD FRONT ENTRANCE
COLEMAN-HOLLISTER HOUSE—1796—GREENFIELD, MASSACHUSETTS

[28]

SEMI-CIRCULAR STAIRCASE IN RECESS OFF ENTRANCE HALL
COLEMAN-HOLLISTER HOUSE—1796—GREENFIELD, MASSACHUSETTS
ASHER BENJAMIN, ARCHITECT

[29]

ENTRANCE HALL, LOOKING TOWARD FRONT DOOR
AZOR ORNE HOUSE—c.1765—MARBLEHEAD, MASS.

ENTRANCE HALL, LOOKING TOWARD FRONT DOOR
NICKELS-SORTWELL HOUSE—1807-08—WISCASSET, MAINE

AZOR ORNE HOUSE—c.1765—MARBLEHEAD, MASS.

NICKELS-SORTWELL HOUSE—1807-08—WISCASSET, MAINE

VIEW ALONG ENTRANCE HALL TOWARD REAR DOOR
SQUIRE WILLIAM SEVER HOUSE—1760—KINGSTON, MASS.

HALL AND ARCHWAY, LOOKING TOWARD GARDEN DOOR
MERRIMAN HOUSE—c.1820—BRISTOL, RHODE ISLAND

of a quite unusual *corner* Entrance Hall, as it appears in the Moffatt-Ladd House, 1763, at Portsmouth, N. H. The same plan is repeated, upon a somewhat smaller scale, in at least two other Portsmouth houses.

Despite the apparently elaborate layout of several of these Hall plans, all (with the possible exception of the one last named) nevertheless conform within a reasonably economical floor area, in relation to the space covered by the whole house. In the case of the Nickels-Sortwell Hall, the effect of Entrance Hallway, cross arch, and staircase are all secured within the one-room house depth, as appears more plainly, perhaps, by referring to other illustrations of this hall, in Volume XII, Number 6.

Finally, mention should be made of another arrangement of staircases, each starting from near the doors at front and back house walls, and running toward each other, to meet on a short landing near the center of the Hall's length, with a final short run of two or three steps at right angle, to the floor above.

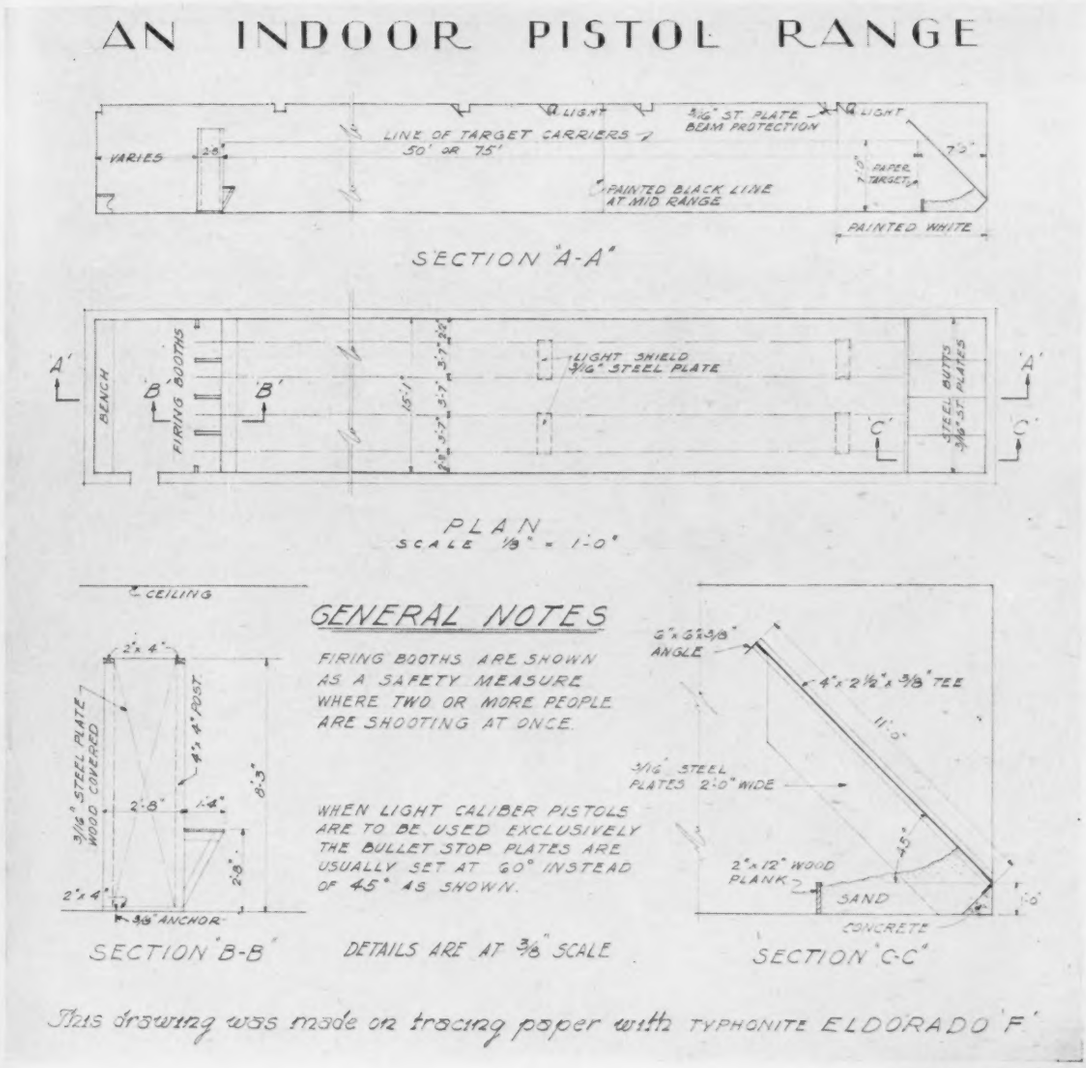
Although this Monograph is given to the Entrance Hall, rather than the staircase; yet the two are so closely associated in early New England house plans, that it is not possible to picture one without the other. That much more might be made of the Hallway is proven by the Azor Orne and Nickels-Sortwell entrances; while in the Coleman-Hollister Hallway, no staircase appears until the center of the Hall is passed, when this charmingly delicate stairway comes into full view. With the exception of this example, and the stairway of the Nickels-Sortwell House, the elliptical or semi-circular stair plan—usually a later and more sophisticated development—is not presented in this issue.

FRANK CHOUTEAU BROWN, A.I.A.

Courtesy Soc. Pres. N. E. Antiquities

ENTRANCE HALL, ARCHWAY, AND STAIRCASE
CAPTAIN GREGORY PURCELL HOUSE—1757-59—PORTSMOUTH, NEW HAMPSHIRE

*TYPHONITE ELDORADO PENCIL PAGE



With the likelihood of more and more families taking their hobby cue from the re-armament programs, *Typhonite Eldorado offers a carefully prepared sheet of condensed information on an Indoor Pistol Range. To enjoy a range such as this, it is not even necessary to use actual firearms. There are a number of target pistols using compressed air for propulsion.

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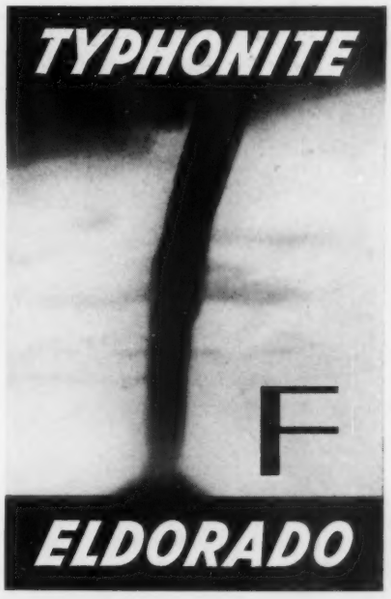
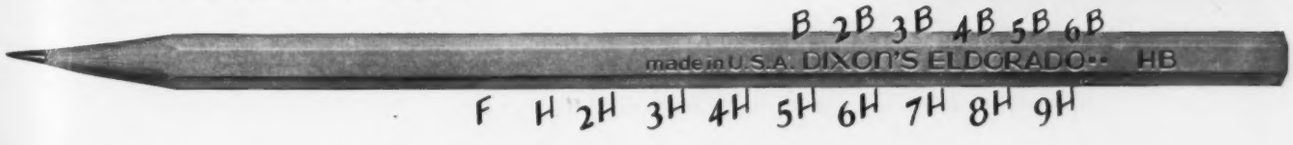


***TYPHONITE** *is a new form of natural graphite, used exclusively by Dixon in making leads for Eldorado, The Master Drawing Pencil. Typhonite consists of extremely minute particles produced by a whirlwind or typhoon of dry steam. This new exclusive Dixon process is one of the reasons why Eldorado pencils hold their points longer, give off freely, and make such opaque lines and figures.*



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THE MART. In this department we will print, free of charge, notices from readers (dealers excepted) having for sale or desiring to purchase books, drawing instruments, and other property pertaining directly to the profession or business in which most of us are engaged. Only those items will be listed for sale which we can no longer supply from our own stock. Such notices will be inserted in one issue only, but there is no limit to the number of different notices pertaining to different things which any subscriber may insert.

PERSONAL NOTICES. Announcements concerning the opening of new offices for the practice of architecture, changes in architectural firms, changes of address and items of personal interest will be printed free of charge.

FREE EMPLOYMENT SERVICE. In this department we shall continue to print, free of charge, notices from architects or others requiring designers, draftsmen, specification writers, or superintendents, as well as from those seeking similar positions.

SPECIAL NOTICE TO ARCHITECTS LOCATED OUTSIDE OF THE UNITED STATES: Should you be interested in any building material or equipment manufactured in America, we will gladly procure and send, without charge, any information you may desire.

Notices submitted for publication in these Service Departments must reach us before the twelfth of each month if they are to be inserted in the next issue. Address all communications to 330 West 42nd Street, New York, N. Y.

THE MART

Wanted: Copy of *Modern Perspective*, Wm. Robert Ware, MacMillan Company, N. Y., 1900. State price and condition. Communicate Miss Flagg, PENCIL POINTS.

John B. Aicher, 2000 Washington Boulevard, Easton, Pa., has for sale all copies of PENCIL POINTS from January, 1929, to last year, all practically new. Will sell as one lot, purchaser to pay express charges.

Edward H. Tatum, 11 West 42nd Street, New York, N. Y., has for sale copies of the *Forum* for 1919, 1920, 1921, and 1922.

Ferdinand Foeppel, 2720 Grand Concourse, Bronx, New York, has for sale a copy of Kidder & Parker's *Architects and Builders Handbook*, price $5.00. Originally was $7.00.

WE WILL PAY $1.00 for a copy of Volume II, No. 1, of *The White Pine Series of Architectural Monographs*. Address *The White Pine Department*, PENCIL POINTS.

PERSONALS

J. M. BERLINGER, *Architect*, has moved to larger quarters at 17 East 49th Street, New York, N. Y. The new telephone numbers are PLaza 3-5255, 5256, 5257.

ADRIAN L. RIGGS, *Architect*, has opened an office for the practice of architecture at 1100 East Iron Avenue, Saline, Kansas. He will specialize in the design of small homes, conforming to FHA requirements. He will also conduct a professional drafting service for contractors, engineers, etc., who do not regularly employ the services of a draftsman.

HARRY H. BENTLEY, *Architect*, has moved from Highland Park, Illinois, to 21 Woodmont Road, Belle Haven, Alexandria, Virginia. He is the Regional Project Adviser with the U. S. Housing Authority.

CLARENCE S. LYNCH, *Architect*, has moved from Rockville Centre, L. I., New York, to 4418 5th Street N. W., Washington, D. C.

ROBERT J. L. CADIEN, *Architect*, has moved his office from 545 Gorge Road to 570 Gorge Road, Cliffside Park, N. J.

GEORGE M. KERNS, *Architect*, has moved his office from 211 East Second Street to the Taylor Building, 120 S. Court, Ottumwa, Iowa.

SAMUEL S. RAPHAEL, *Architect*, has moved from New Haven, Conn., to 1106 E. 99th Street, Cleveland, Ohio.

CHRISTIAN S. MICHAELSEN, *Architect*, announces a partnership with Karl Klari Rabig and Albert H. Ramp, for the general practice of architecture, under the firm name of Michaelsen, Rabig and Ramp. The address remains the same, 3256 Franklin Boulevard, Chicago, Ill.

DAVID C. BAER, *Architect*, and LEWIS M. HAMBY, *Architect*, have formed a partnership under the name of David C. Baer and Lewis M. Hamby, Architects, with offices at 903 West 24th Street, Austin, Texas.

NORMAN BEL GEDDES, *Designer*, has opened new extensive quarters in the Associated Press Building in Rockefeller Center, New York.

BASIL G. F. LASLETT, *Architect*, has moved his office from Greensboro, N. C., to 416 Huske Building, Fayetteville, N. C., where he will continue the practice of architecture.

DIAL & THOMAS, *Architects*, have opened architectural offices in the Standard Building & Loan Building, Columbia, S. C.

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ARCHITECTURAL draftsman, age 35, well educated, good appearance, can execute beautiful renderings and working drawings. Will work for $30 a week. Box No. 418.

REPUTABLE practicing architect, 42 years of age, married, 22 years' experience, desires employment with a reputable architect, or to associate with a retiring architect who wishes to be relieved of responsibility. Box No. 419.

YOUNG registered architect wishes to contact practicing architect desiring service. Compensation by share of commissions with possibility of percentage partnership. Can make modest investment. Box No. 420.

DESIGNER-DRAFTSMAN with talent, but practical, wishes position in New York or Connecticut vicinity. Can make renderings, do development work and supervise drafting room. Some supervision and specification writing. 15 years' experience in general practice. Box No. 421.

MAN AND WIFE, 30, white, Protestant, New England born, want work, go anywhere. Man—architect, muralist, cartographer, experienced woodsman (Canada). Wife — laboratory technician — x-ray. Both fingerprint experts, can handle rifle, good sailors. Best of references. Correspondence invited. Box No. 422.

(Continued on page 48, Advertising Section)

Make rooms colorful, quiet, comfortable with

TEMLOK DE LUXE

the smooth-surfaced interior finish that insulates and decorates

CEILING AND WALLS in the Emory Theater, Atlanta, Ga., are of Armstrong's Temlok De Luxe for reverberation-control, color, and fuel-saving insulation. The ceiling is cream. Side walls above light line are cream with inserts of ash. Lower walls are ash.

HERE'S a modern new interior finish that does three jobs at one and the same time! Temlok De Luxe, made by the makers of Armstrong's Linoleum, is an efficient insulating material; it helps to quiet noise; and its factory-applied colors offer a wide range of decorative effects!

Armstrong's Temlok De Luxe is supplied with a smooth surface finished in six harmonious colors—ash, coral, cream, green, walnut, and white. It is made in small and large panels, planks, and boards, which can be varied to make pleasing designs. Easily handled and quickly erected, it provides efficient noise-quieting and effective insulation against heat and cold.

Try Temlok De Luxe for the next public, commercial or residential interior you plan. See how its beautiful colors lend themselves to the effect you wish to create. Count on a lower noise level, greater comfort, and lower fuel bills to contribute to your client's pleasure. You'll find this an interesting material with which to work, both in new construction and in modernization projects.

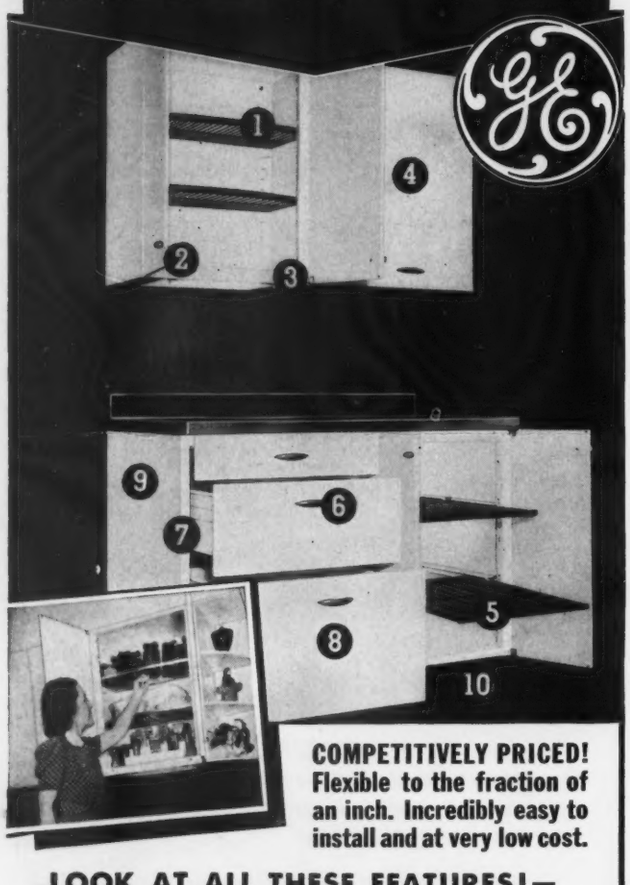
Color-illustrated data describing Temlok De Luxe and showing a few of its many uses will be found in Sweet's Catalog File. Please address inquiries and requests for samples to Armstrong Cork Company, Building Materials Div., 922 Concord St., Lancaster, Pa.

Armstrong's TEMLOK INSULATION

De Luxe Interior Finishes

TEMSEAL SHEATHING · LATH · ARMSTRONG'S MONOWALL

GENERAL ELECTRIC ANNOUNCES
A COMPLETE NEW LINE OF ALL-STEEL
Kitchen Cabinets



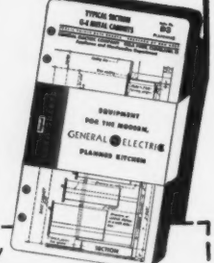
COMPETITIVELY PRICED! Flexible to the fraction of an inch. Incredibly easy to install and at very low cost.

LOOK AT ALL THESE FEATURES!—

1. Adjustable shelves of steel wire—refrigerator type. **2.** Concealed spring-action hinges. **3.** Automatic interior lighting in both wall and base cabinets. **4.** Self-contained "packaged" units—each one complete—no finishing necessary. **5.** Adjustable *sliding* shelves. **6.** Designed (including hardware) to harmonize with G-E Kitchen appliances. **7.** Roller bearing drawer slides. **8.** Interchangeable drawers. **9.** 2-coat gleaming white Glyptal-baked enamel finish. **10.** Scuff-resisting recessed toe space.

RESERVE YOUR DON GRAF DATA SHEETS NOW!

Ready soon! . . . Free Don Graf Data Sheets on the new G-E Kitchen Cabinet line. They are yours for the asking, along with complete information. Just fill out the coupon and send *today*.



General Electric Co., Section CP4, Specialty Appliance Div., Nela Park, Cleveland, Ohio.

Please send free Don Graf Data Sheets as soon as they are off the press and include complete information on the new G-E Kitchen Cabinet line.

Name _____

Firm _____

Address _____

GENERAL ELECTRIC

PUBLICATIONS ON MATERIALS AND EQUIPMENT

of Interest to Architects, Draftsmen and Specification Writers

Publications mentioned here will be sent free unless otherwise noted, upon request, to readers of PENCIL POINTS *by the firm issuing them. When writing for these items please mention* PENCIL POINTS.

ARCHITECTURAL LAMICOID.—Useful handbook for architects and designers on the subject of architectural Lamicoid-Bakelite laminated prepared by Vahan Hagopian, A.I.A. It briefly describes architectural Lamicoid, as manufactured by the Mica Insulator Co., and contains practical instructions for the application, veneering, paneling, joining and fastening of the sheets. It also includes eight original architectural interior and exterior designs and some original designs showing the possibilities for obtaining paneling effects. 20 pp. Mica Insulator Co., 200 Varick St., New York, N. Y.

WESTINGHOUSE COMMERCIAL LIGHTING EQUIPMENT.—Looseleaf catalog illustrating and describing a line of commercial lighting equipment embracing three types of luminaries, direct, semi-direct and luminous indirect. Included is useful data covering the design of commercial lighting installations. 48 pp. 8¾ x 11½. Westinghouse Elec. & Mfg. Co., 1216 West 58th St., Cleveland, O.

PEMCO COLOR CHART.—Folder showing color samples of Pemco basic and blended oxides from which over 400 different colors may be mixed. Included also are approved colors established by the U. S. Bureau of Standards, for the purpose of standardizing and matching colors of various household appliances and furnishings. The Porcelain Enamel & Mfg. Co., Pemco and Eastern Aves., Baltimore, Md.

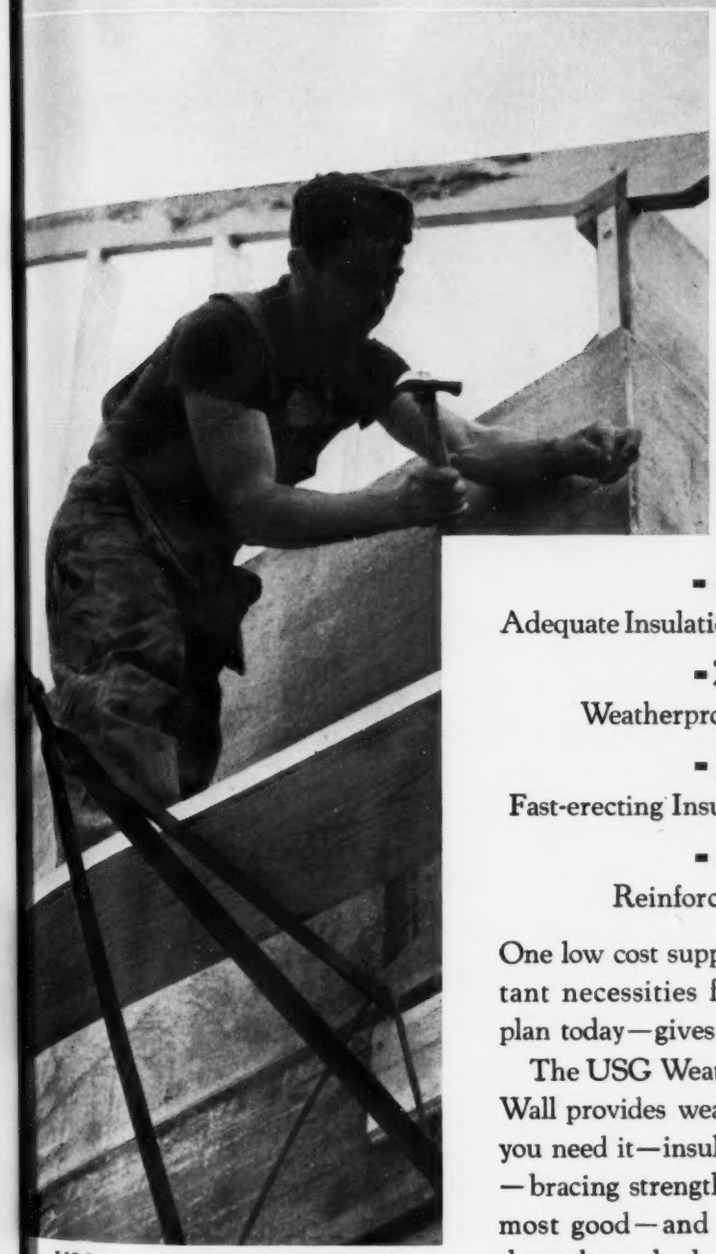
FORMICA TABLE TOPS.—Folder illustrating in colors a variety of designs of table tops for use in the public rooms in hotels, restaurants, trains, ships, etc. 4 pp. 8½ x 11. The Formica Insulation Co., 4614 Spring Grove Ave., Cincinnati, O.

PRACTICAL DESIGN IN MONEL METAL.—A.I.A. File No. 15-g. Valuable new reference manual designed to place before architects such knowledge of Monel metal as will enable them to employ it in the most advantageous manner. Included are essential data concerning its physical properties, a discussion of its personality as a factor in design, a presentation of the technics of both fabrication and design in Monel metal, and a presentation of its more important applications to architectural problems. Profusely illustrated. 72 pp. 8½ x 11. The International Nickel Co., Inc., 67 Wall St., New York, N. Y.

DUBLBRAK CIRCUIT BREAKER PANELBOARDS AND CABINETS.—A.I.A. File No. 31-d. Bulletin No. 57 presents detailed description of the constructional features and advantages of a newly-developed line circuit breaker panelboards and cabinets available for either alternating or direct current. Included are suggestions for specifications. 16 pp. 8 x 10½. Frank Adam Elec. Co., Drawer 357, St. Louis, Mo.

(Continued on page 42, Advertising Section)

Specify these 4 primary requirements *for* TODAY'S HOUSES



USG 2' x 8' T & G Asphalt-Coated Sheathing Builds, Braces and Insulates; ties 7 studs together horizontally. It's the "One-Man Sheathing"!

-1-
Adequate Insulation at Minimum Cost

-2-
Weatherproof Sheathing

-3-
Fast-erecting Insulation Plaster Base

-4-
Reinforced Plaster

One low cost supplies all these important necessities for the homes you plan today—gives owners a big value.

The USG Weatherwood* Insulated Wall provides weatherproofing where you need it—insulation at vital points—bracing strength where it does the most good—and genuine economy throughout the building!

Ask your USG representative for full information or write USG today.

USG Weatherwood V-joint fasnap Reinforced Lath—provides both insulation and plaster base in one product; reinforcement to minimize plaster cracks.

WEATHERWOOD
Insulated Wall

Product of **United States Gypsum Company**

300 West Adams Street, Chicago, Illinois

*Registered Trade Mark

WEISWAY
Cabinet Showers
FOR ADDED BATHS IN ANY HOME

OR A BASEMENT SHOWER

A LUXURIOUS MASTER BATH

● Architects find Weisways the answer to the modern demand for added baths, in homes of every size and cost. From the sturdy "Cottager" to the "V P" with vitreous porcelain walls and floor, there are Weisway models suitable for every home, from simplest to most luxurious—as well as for hotels, clubs, institutions and commercial buildings. Exclusive foot-grip, no-slip, vitreous porcelain floor is safe, sanitary, easy to clean.

Weisway leak-proof construction has overcome troubles frequently experienced with other types of shower bath construction. Easily, quickly installed without special treatment of building walls or floor, Weisways are equally adaptable for new building or modernizing.

MAIL COUPON now for detailed information about Weisways for homes, institutions, commercial buildings.

HENRY WEIS MFG. CO. (Est. 1876) **421 Oak St., Elkhart, Ind.**
Please send literature on Weisway Cabinet Showers.

Name_____

Street_____

City_____ State_____

PUBLICATIONS ON MATERIALS AND EQUIPMENT

(Continued from page 40, Advertising Section)

NORTHWESTERN TERRA COTTA SPECIFICATIONS.—A.I.A. File No. 9. Bulletin No. 7 presents specifications for exterior architectural terra cotta, also specifications for extruded terra cotta wall ashlar with special shapes and architectural motifs. 12 pp. 8½ x 11. Northwestern Terra Cotta Corp., 1750 Wrightwood Ave., Chicago, Ill.

REPUBLIC STEEL ROOFING PRODUCTS.—New Roofing Products book—ADV320—illustrates and describes many styles and products of special and standard steel roofing. These include, in addition to such specialties as Republic triple drain roofing and accessories, super-dry roofing and Taylor roofing ternes, V-crimped roofing, self-capping roll roofing, roll and cap roofing and corrugated roofing. Included is data on Republic galvannealed sheets and Enduro stainless steel sheets. Complete tabular information is incorporated covering standard weights per square, in pounds; estimating table for roofing products; allowances for laps on corrugated sheets; extras on galvanized or painted roofing and siding; rolling limits; freight per square on all forms of galvanized roofing and siding; and bundling tables for galvanized flat sheets. 32 pp. 8½ x 11. Republic Steel Corp., Advertising Division, Cleveland, Ohio.

FENESTRA HEAVY CASEMENT-TYPE STEEL WINDOWS.—A.I.A. File No. 16-e-1. Useful reference manual covering a line of windows constructed of heavy, steel casement sections and designed in hinged, projected and stationary units for use in all types of fine buildings. Included are specifications, hardware data, types and sizes, sections, installation details, etc. 28 pp. 8½ x 11. Detroit Steel Products Co., 2250 East Grand Blvd., Detroit, Mich.

ANDERSEN WOOD WINDOWS.—Attractive brochure describing the Andersen line of complete window units, including wood casements, Narroline double hung windows and wood basement windows. 16 pp. 8½ x 11. Andersen Corp., Bayport, Minn.

KEWANEE TYPE R ROUND AND SQUARE BOILERS.—A.I.A. File No. 30-c-1. Folder 93a presenting descriptive, specification and measurement data covering a line of round and square boilers for heating homes with oil or gas. 4 pp. 8½ x 11. Kewanee Boiler Co., Kewanee, Ill.

NEW FEATURES IRON FIREMAN FOR 1939. — Catalog illustrating and describing in detail the construction and operation of the Unit Heatmaker, a new type heating unit which provides automatic heating without a central heating plant for use in urban and rural homes, small business structures, theatres, garages, schools, etc. Included are descriptions of new features incorporated in various models of Iron Fireman stokers. 20 pp. 8½ x 11. Iron Fireman Mfg. Co., Portland, Ore.

LIGHTING FOR PRODUCTION IN THE FACTORY.—Valuable new treatise by A. K. Gaetjens and Dean M. Warren discusses the factory lighting problem in terms of new knowledge of seeing. Incorporated in the treatise are helpful lighting suggestions together with information covering many uses for two new light sources—the Fluorescent Mazda lamp and the Projector lamp. Price 20 cents. General Elec. Co., Nela Park Engineering Dept., Cleveland, O.

(Continued on page 44, Advertising Section)

THIS can't happen HERE

NEW BARB-LOCK SHINGLE ASSURES PERFECT ROOF DRAINAGE

THE Barber Genasco Barb-Lock Roof shown on the attractive home above introduces a new development in asphalt roofing, and offers several unique features that are important to you and your clients.

BARBER Genasco PRODUCTS

Nationally advertised Barber Genasco Products, made with *The Vital Element*, include: Bonded and other types of Built-up Roofings, Mastic Floorings, Shingles. Other Barber Asphalt Products include: Waterproofing Asphalts and Fabrics, Resaturator, Resurfacer, Asphalt Protective Products (Plastics and Liquids), Spandrel Beam Waterproofing (Spandrel Cloth and Cement).

Attractive Appearance, Beautiful Colors

There's a pleasing "thatched" effect with the new Barb-Lock Shingle. It lays up with a deep "shadow line" and produces a most appealing over-all design. Available in seven beautiful colors.

Patented, Exclusive Locking Device

A simple, ingenious fold-under locking device fastens each shingle to the adjoining shingles in a vise-like grip.

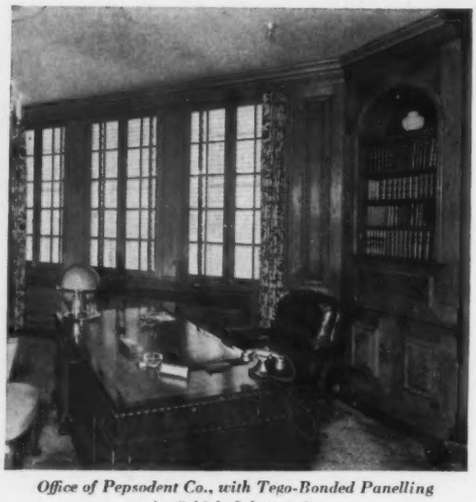
Accentuated Drip Edge

Complete drainage and additional weather protection are assured by a drip edge that diverts water *away* from the between-shingle laps, and is designed to prevent accumulation of rain or snow *under* the shingle.

The Vital Element

The new Barb-Lock, like other Barber Genasco Roofings, offers the superb protection of genuine Trinidad Native Lake Asphalt — *The Vital Element*. No other roofings are made with this native *waterproofer* and *weather*-proofer. For full details, address Barber Asphalt Corporation, Barber, N. J.

FOR FURTHER INFORMATION
SEE OUR CATALOG IN SWEET'S



Office of Pepsodent Co., with Tego-Bonded Panelling by Schick-Johnson Co.

TEGO-BONDED

in veneer and plywood specifications means that the panels are fused permanently together with resin film by a modern process well established for over four years. It also means:

Absolute durability and safety from delamination

High structural strength at low weight

Extreme range of decorative possibilities with rare wood veneers

See Sweets 8, 20; Time Saver Standards K4.3.1; and Architects Sample Bureau, New York. List of panel suppliers furnished on request.

Tego Resin Film for this unique material is made by The Resinous Products & Chemical Co., Inc., 222 W. Washington Square, Philadelphia, Pa.

RESINOUS PRODUCTS

PUBLICATIONS ON MATERIALS AND EQUIPMENT

(Continued from page 42, Advertising Section)

BUILD BETTER BUILDINGS WITH POTTSCO LIGHTWEIGHT CONCRETE UNITS.—A.I.A. File No. 10-a-2. New reference guide, prepared especially for architects and contractors, describes in detail the outstanding advantages of Pottsco lightweight aggregate used in the manufacture of lightweight concrete building units for both load bearing and non-bearing walls. 12 pp. 8½ x 11. The Celotex Corporation, 919 N. Michigan Ave., Chicago, Ill.

CHENEY FLASHING.—A.I.A. File No. 12-h-1. New publication, dealing with the subject of Cheney flashing, describes two new products, Three-Way 10 oz. flashing and the Cheney system of spandrel waterproofing. Detail drawings, specifications, etc. 16 pp. 8½ x 11. Revere Copper and Brass, Incorporated, 230 Park Ave., New York, N. Y.

BULL DOG ROCKER TYPE SWITCHES AND PANELBOARDS.—A.I.A. File No. 31-d-3. Set of bulletins announcing and describing a new safety switch and a line of lighting panelboards incorporating a Rocker principle of front operation. 8½ x 11. Bull Dog Electric Products Co., 7610 Jos. Campau Ave., Detroit, Mich.

PYRAMID PASTEL SNAP-ON MOULDINGS.—Folder describing and illustrating in color a variety of patterns of full-tinted pastel shaded mouldings in Eraydo metal suitable for both inside and outside trim. 4 pp. 8½ x 11. Pyramid Metals Co., 1385 North Wells St., Chicago, Ill.

FEDERAL SPECIFICATIONS FOR AIR-CONDITIONING UNITS (ROOM COOLERS); ELECTRIC-MOTOR-DRIVEN, PORTABLE. — Publication 00-A-361 contains complete Federal specifications for air-conditioning units (room coolers) and electric-motor-driven, portable. Copies of specification may be secured by sending five cents to Superintendent of Documents, Washington, D. C.

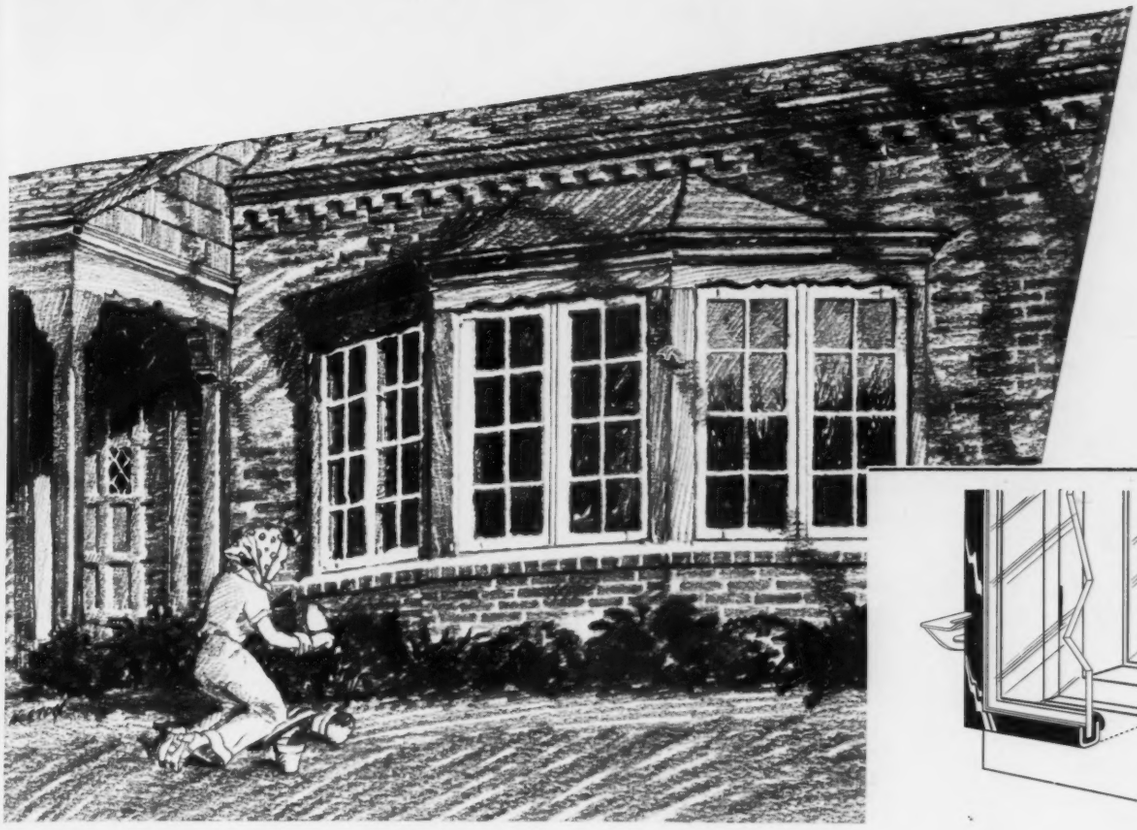
THE WELDING OF WROUGHT IRON.—New bulletin discussing recommended processes and procedures for welding wrought iron. Included is data on the physical properties of welded wrought iron sections. 16 pp. 8½ x 11. A. M. Byers Co., Pittsburgh, Pa.

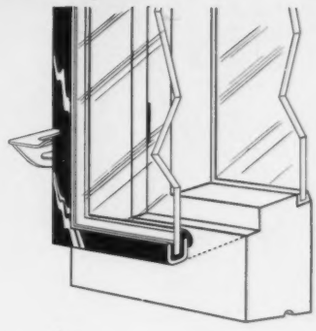
KINNEAR ROLLING DOORS.—A.I.A. File No. 16-d-13. New reference manual covering the Kinnear line of steel rolling doors, fire doors and shutters, metal rolling grilles, Rol-Top doors, bi-folding doors, door operating equipment and wood rolling partitions. Specifications, details, tabular matter, etc. 36 pp. 8½ x 11. The Kinnear Mfg. Co., 820 Fields Ave., Columbus, Ohio.

BUILDING YOUR HOME WITH WESTERN PINES.—New brochure presenting practical suggestions on the use of Idaho white pine, Ponderosa pine and sugar pine in good frame construction for rough carpentry items, finish and architectural woodwork. Profusely illustrated. 16 pp. 8½ x 11. Western Pine Association, Yeon Building, Portland, Ore.

TRANE AIR WEATHER MAGIC.—February issue features the installation of Trane convectors and unit heaters in the new Junior-Senior High School at New London, Tex., which was built to replace the structure that was destroyed by an explosion in March 1937. 8 pp. 8½ x 11. The Trane Co., La Crosse, Wis.

(Continued on page 46, Advertising Section)





Pella CASEMENTS *with* DUAL GLASS

protect against winter cold and summer heat

Recent Studies* reveal that Dual Glazing will save your clients more fuel dollars than any other form of insulation per dollar invested! Pella's Dual Glazing consists of a single pane of Libbey-Owens DSA Glass set in a cadmium plated, steel frame that is lined with live rubber. This panel mounts on the wood sash with hinged clips and is easily removable. Practically invisible. The vertical air space thickness is .87 inches for maximum insulation.

Only Window with Wood Lined Steel Frame — Pella Casement Windows have rigid metal frames made of heavy sixteen gauge rustproof, galvannealed (zinc impregnated) steel. These frames are full jamb width—$5\frac{5}{16}$" wide and they are made to fit all types of wall construction. Clear, white pine (other woods if desired) is used for lining casement frames.

Other Pella Casement Features — ROLSCREENED—famous Pella Rolscreens preserve the architectural beauty of clear, sparkling windows. Always in place—no putting up—no taking down. Guaranteed for 10 years. SPRING BRONZE WEATHER-STRIPPING — compression type — that paint can't clog. Tension easily adjusted. Exclusive Pella design.
SASH — Genuine white pine $1\frac{3}{4}$" thick. Hung on non-extension, self-cleaning hinges. Underscreen, worm gear operator built in.

Saves Drafting Time — Pella Casement details can be drawn into your own plans, thus eliminating further drafting on window construction. Authentic designs are available to blend in with and emphasize the character of any style architecture.

Saves on Wall Cost — Overall Casement dimensions are 20% over-size which saves materially on wall cost. Glass size 9" x 12" — admits 12½% more light. Weather-tight and highly non-conductive to heat and cold, Pella Casements meet rigid requirements of modern heating, ventilating and air conditioning.

**Copies of Studies gladly sent upon request.*

CUT INSTALLATION COSTS

Pella Casements are 100% factory fitted and completely assembled. After uncrating, they are simply set into rough wall openings, caulked and locked in place by means of inside interlocking fins. Weather-tight installation completed in about 20 minutes.

SEE OUR CATALOG IN SWEET'S

Write Today

FOR FREE BOOK

This interesting book shows progressive installation photos and complete data. It is file size. Get your FREE copy by writing to: ROLSCREEN COMPANY, Dept. P49, Pella, Iowa.

Pella CASEMENTS

VENETIAN BLINDS ★ ROLSCREENS

BEAD CHAIN*

Now Available in
"MONEL"

BEAD CHAIN* is the non-kinkable chain of many architectural uses, which adapts itself to decorative as well as practical utility.

It is now available in "Monel" as well as other metals, from 3/32" to 1/4" diameter beads. In "Monel" it resists salt water and meets atmospheric and other conditions where "Monel" is desirable.

Moreover, BEAD CHAIN* of "Monel" has a considerably greater tensile strength, so that the use of this distinctive chain is now extended for architectural and industrial purposes.

BEAD CHAIN
ESTABLISHED 1914
Trade Mark Reg. U.S. Pat. Off.

We will gladly work with architects, designers and manufacturers to develop assemblies of BEAD CHAIN* in nickel silver, brass, aluminum, "Monel" and other metals as desired.

THE BEAD CHAIN MANUFACTURING CO.
54 MT. GROVE STREET BRIDGEPORT, CONN.
* Reg. U. S. Pat. Off.

PUBLICATIONS ON MATERIALS AND EQUIPMENT

(Continued from page 44, Advertising Section)

ALKALOX — NEW ALKALI-PROOF PAINT. — Folder describing a new alkali-proof paint for basement floors and hard-to-paint areas. Color chart, application instructions, etc. Minwax Co., Inc., 11 West 42nd St., New York, N. Y.

CHAMBERLIN WEATHER STRIPS AND SCREENS. —New brochure describing a line of weather strips and all-metal flat and roll screens. 16 pp. 8½ x 11. Chamberlin Metal Weather Strip Co., Inc., 1254 La-Brosse St., Detroit, Mich.

THE BRYANT POWERSTAT GAS CONTROL.— Folder describing and illustrating three models of Powerstat oven lighters. 4 pp. 8½ x 11. The Bryant Heater Co., 17825 St. Clair Ave., Cleveland, O.

MANUFACTURERS' DATA WANTED

GEORGE M. KERNS, *Architect,* Taylor Building, 120 S. Court, Ottumwa, Iowa.

CLARENCE S. LYNCH, *Architect,* 4418 5th Street N. W., Washington, D. C. (Data for complete A.I.A. file.)

HARRY H. BENTLEY, *Architect,* 21 Woodmont Road, Belle Haven, Alexandria, Virginia.

ADRIAN L. RIGGS, *Architect,* 1100 East Iron Avenue. Salina, Kansas.

RAYMON ALSUP, *Architect,* 2017 Santa Anna Street, San Antonio, Texas.

W. H. PUGH, *Architect,* 1208 Elmwood Avenue, Fort Wayne, Indiana. (Complete data on schools, churches and large public buildings, for A.I.A. files.)

CHARLES H. KYSON, *Architect,* 8728 Rangely Avenue, Los Angeles, Calif. (Catalogs in duplicate on the latest practice in house design, planning, and equipment.)

DELMAR L. LAMBERT, *Architect,* 2 Stoneland Road, Worcester, Mass.

THOMAS W. HOPWOOD, *Drafting Instructor,* 1214 Bartlett, Houston, Texas. (Data for complete A.I.A. file.)

THOMAS GRASSO, *Draftsman,* 102-20 43rd Avenue, Corona, New York. (Data for complete A.I.A. file.)

HAROLD RICHMAN, *Draftsman,* 52 McDaniel Avenue, Jamestown, N. Y.

JOHN MANCINELLI, JR., *Draftsman,* 44 Elizabeth Street, Ossining, N. Y. (Data on residential work, store fronts, small commercial buildings, also data for complete A.I.A. file.)

HERBERT J. MacGREGOR, *Draftsman,* 120 Broadway, New York, N. Y.

MILTON J. KLUCK, *Draftsman,* 2226 Washington Street, Dubuque, Iowa.

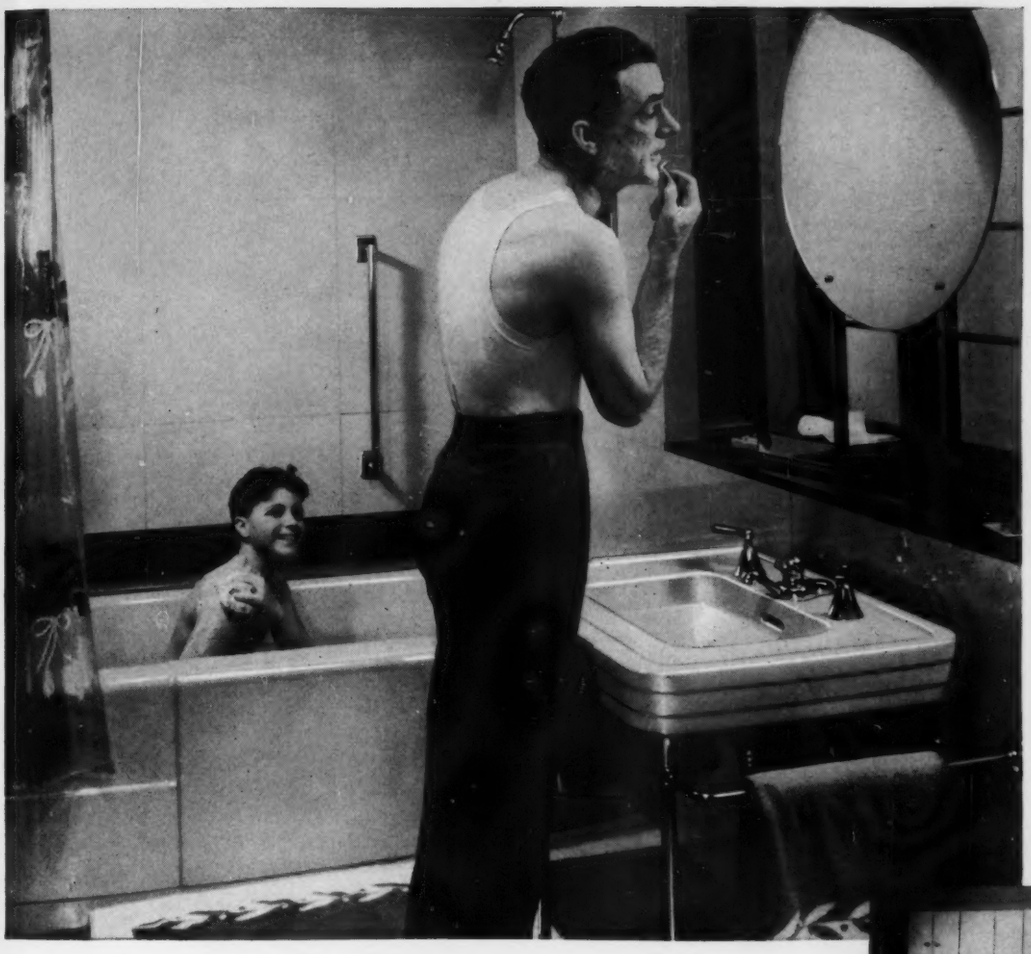
JOSEPH R. KREMEN, *Draftsman,* 4820 S. Damen Avenue, Chicago, Ill.

GEORGE DEVRIES, *Draftsman,* 246 Park Avenue, Arlington, Mass. (Data on residential work and stores, also data for A.I.A. file.)

BERNARD J. GLICKHOUSE, *Student,* 1466 Columbia Road, Washington, D.C. (Data for A.I.A. file.)

ALBERTA SPARLIN, *Student,* 220 E. Bannock Avenue, Dillon, Mont.

RICHARD H. BORMAN, *Student,* State Teachers College, Millersville, Pa. (Data on materials, plans, etc., for all types of homes, especially English and Colonial styles and modern, also fireplace data.)



SEE THE CRANE INSERT IN SWEET'S ARCHITECTURAL CATALOG GIVING SUGGESTIONS ON PLANNING BATHROOMS, KITCHENS AND HEATING SYSTEMS

They Wanted a Bathroom That's Fun to Use

"WHEN we build," Jones Senior used to say, "we're going to have a bathroom that's more than a mere utility . . . a bathroom that's really FUN to use!" So today, in their new house, they have just that: a CRANE bathroom, selected by their architect to fit the Jones' ideas of comfort and convenience . . . at a price the Jones can afford to pay.

The people you're planning houses for like to get enjoyment out of life, too. You should know about Crane's bathroom planning service . . . a service that places at your disposal a wealth of new, practical ideas for making bathrooms more livable. In Crane bathrooms, utility is made more attractive and enjoyable. The extra convenience of Crane plumbing products comes from better basic design . . . not from novelties or "gadgets." And because Crane can suggest a multitude of *complete* bathroom treatments, you are sure of obtaining the inherent harmony of form, design and color which every architect appreciates.

At the nearest Crane Display Room, the Crane Planner will help you in the planning of bathrooms to suit every type of home. Make it a point to visit the Crane Display Room and take advantage of this service and bring your client, too.

Efficiency in use combined with beauty in appearance are the qualities which your clients want in the kitchens you design for them. Crane modern sinks will help you make your kitchens both charming and convenient to use. Make use of the Crane Planning Service—it is maintained for your convenience.

CRANE

CRANE CO., GENERAL OFFICES
836 S. MICHIGAN AVE., CHICAGO

VALVES • FITTINGS • PIPE
PLUMBING • HEATING • PUMPS

NATION-WIDE SERVICE THROUGH BRANCHES, WHOLESALERS, PLUMBING AND HEATING CONTRACTORS

"My nerves were a-twitter,"
Said Architect Ritter,
"My pencils would break or else crumble,
But now with 'Castell'
I'm feeling so well,
The blues I'm not giving a tumble!"

PERHAPS, unlike Mr. Ritter your nerves are evenly balanced. If you can bear the grating of a hard spot in the graphite—if you can tolerate the maddening *scrunch* as the point crumbles just when you are making strides with your drawing—if you can bear it you are indeed a strong man. But consider—isn't it worth the few pennies difference to work with A. W. Faber's famous "Castell"—a pencil with a graphite purity of between 99.5% and 99.8%. A pencil that does not flake, scratch or smudge. A pencil that resists 4 to 6 lbs. pressure without breaking! Give your nerves a complete rest on your next project. Use "Castell"—the pencil that even the trade accepts as the world's standard of quality. 18 degrees.

A. W. FABER, INC. • NEWARK, NEW JERSEY

No Grit
No Scratch
No Smudge

WORLD'S FINEST DRAWING PENCIL—NONE HIGHER PRICED IN AMERICA

A.W. FABER-CASTELL

DRAWING PENCIL IN THE METAL BOX

15¢ each ★ $1.50 per dozen

FREE EMPLOYMENT SERVICE FOR READERS OF PENCIL POINTS

Replies to box numbers should be addressed care of PENCIL POINTS, *330 West 42nd Street, New York. 25 words or less in this Department FREE—over 25 words ten cents per word should accompany all notices. Copy must be in by 12th of month* preceding date of issue.

(Continued from page 38, Advertising Section)

POSITIONS OPEN

JUNIOR ARCHITECTURAL DRAFTSMAN, office experience necessary. School experience desirable. In reply give complete details and sample of work. O. L. Hazelwood, Link Bldg., Palestine, Texas.

POSITIONS WANTED

ARCHITECT—New Jersey registration—valuable as an associate with another architect who has been commissioned to do Government Housing Project. Ten years of extensive research on all phases of this subject. Not limited in location. Box No. 400.

CONSTRUCTION SUPERINTENDENT—Registered New York, licensed Miami, Florida. 16 years' experience Chain Store, Apartment House and other types throughout the country. Capable, efficient. Travel anywhere. Box No. 401.

ARCHITECTURAL and structural engineering draftsman, 25 years' experience, especially residences and schools. Technical training in architecture, structural engineering, landscape architecture, interior decorating, heating and ventilating. Box No. 402.

COLUMBIA architectural student, civil engineering training, Mechanics Inst. graduate, office experience, desires summer position anywhere in U. S., Mexico or South America. Ken Brehm, 116-13 Jamaica Ave., Richmond Hill, N. Y.

JUNIOR architectural draftsman desires position in any capacity, age 20. Graduate of four-year architectural course. Experience in leading architect's and builder's office. Box No. 403.

ARCHITECTURAL draftsman, registered, thoroughly experienced in design and all branches of the work, would like position on salary or commission basis with view to associateship. Box No. 404.

ARCHITECTURAL draftsman and designer, 4 years' practical experience. Working drawings of churches, prisons and small homes. Designs for sanatorium, modern farm units, etc. University training. Box No. 405.

REGISTERED architect, specification writer—all phases of work having to do with running an office. Box No. 406.

SPECIFICATION writer, construction superintendent, contract manager, diversified building construction experience. Registered architect and licensed professional engineer. Consider position in New York City only. Box No. 407.

FIRST CLASS architectural draftsman, experienced. Philadelphia territory preferred but would consider other localities. Box No. 408.

QUALIFIED field man working out of architect's office. Graduate of Chicago Tech. College and 12 years as a carpenter. Box No. 409.

PART TIME—ink drawing. Box No. 410.

(Continued on page 50, Advertising Section)

STANLEY *Announces a New* NON-RISING PIN *

Anyone who knows the shortcomings of the common winged type of non-rising pin in door butts will appreciate that at last, this new Stanley design is the simple solution of the problem.

• •

The non-rising feature of this new pin is secured by means of a split ring attached in a groove in the pin. This split ring fits into a pocket formed in the bottom of the top knuckle of the butt. When the pin, through the action of the door, attempts to rise, the split ring comes in contact with the inside of the knuckle above the pocket and is prevented from further rising.

Outstanding features of the new pin are: extreme simplicity in construction, its effectiveness in operation and its ease in setting and withdrawing.

• •

To the architect, this new, exclusive Stanley feature is further evidence of leadership in hinge construction. It is impossible to so schedule production to introduce simultaneously this new feature into all class numbers, sizes and finishes, but from now on this is our standard type of pin and eventually will appear in all plain joint butts of the 241 grade and up. **The Stanley Works, New Britain, Conn.**

* PATENT PENDING

STANLEY

TRADE MARK

HARDWARE FOR CAREFREE DOORS

OUT WHERE THE GAS MAINS END...

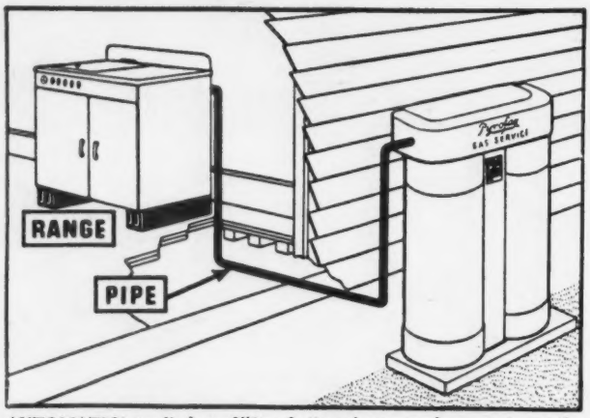
That's where "PYROFAX" GAS SERVICE *Begins!*

Here's the way to give your clients in the country city convenience in the kitchen. For homes beyond the gas mains, specify "Pyrofax" Gas Service.

It's the modern, economical way to cook, heat water, make ice. Saves drudgery and banishes messy fuels from the kitchen. Burns with a clean, hot flame without soot or odor. Makes cooking easier, and *far* more efficient.

"Pyrofax" gas regulating equipment is delivered and installed for only $9.75. The supply of gas is *guaranteed in writing* by Carbide and Carbon Chemicals Corporation. Your clients are always assured of "Pyrofax" gas when they want it!

See Sweet's Catalogue (**28**/67) *for specification data, and write for free fact-books on use of "Pyrofax" gas. Address: "Pyrofax" Gas Division, Carbide and Carbon Chemicals Corporation, 30 East 42nd St., New York, N. Y.*



AUTOMATIC! 2 cylinders of "Pyrofax" gas (guaranteed to contain 100 lbs. each) are delivered—one for use—one for reserve. Automatic changeover device, available for slight additional installation charge, turns on supply from reserve cylinder as soon as cylinder in use becomes empty.

PYROFAX

TRADE-MARK

DEPENDABLE GAS SERVICE

COOKING • WATER HEATING • REFRIGERATION
BEYOND THE GAS MAINS

FREE EMPLOYMENT SERVICE FOR READERS OF PENCIL POINTS

(Continued from page 48, Advertising Section)

SECRETARY AND STENOGRAPHER—desires position with architectural or building concern. Secretarial training, 4 years' real estate office experience. Intelligent, accurate, enthusiastic. Salary $1200. Edna C. Halloran, 152 Colebrook St., Hartford, Conn.

RECENT GRADUATE from College of recognized standing and have B.S. degree in Civil Engineering.

ARCHITECTURAL student—evenings—24 years old, familiar with mechanical and architectural drafting, 2 years' experience; experience in building trades 4 years. Best references. Casimir Major, 61-59 Maspeth Ave., Maspeth, L. I.

ARCHITECTURAL draftsman, 4 years' experience, graduate Pratt Inst., single, age 24, willing to travel. Architect's or builder's office preferred. EVergreen 4-8268 after six p. m.

GRADUATE of Technical High School seeking a start in the architectural field. Willing to start at very small salary. Will continue evening studies. Raymond Commert, 88-50 75th Street, Woodhaven, N. Y.

FIRST CLASS ARCHITECTURAL DESIGNER-DRAFTSMAN (college graduate with Beaux-Arts schooling) creator of original homes. Excellent renderer. Desires connection or position anywhere. Now located in New York. Box No. 411.

JUNIOR ARCHITECTURAL DRAFTSMAN wishes position with architects or builders; trained by three registered architects; can handle apartment house and alteration work; knowledge of building laws. Located in New York City. Box No. 412.

ARCHITECTURAL DRAFTSMAN, age 25, architectural graduate, three years' varied experience in working drawings, good knowledge of construction. Last position at World's Fair. Conscientious worker. Box No. 413.

YOUNG MAN, 25, white, Protestant, New England born, go anywhere in U. S. or foreign country. Technical school graduate, three years' experience estimating building costs; residential, institutional and structural drafting. Knowledge of accounting and office set-up. Box No. 414.

ENGINEERING draftsman, University of Pennsylvania graduate. Three years' experience design and detail. Most work done with reinforced concrete. Adaptable to new work. Beginning salary immaterial. Located in New Jersey. Box No. 415.

ACTIVE REGISTERED ARCHITECT whose business is at a standstill will consider partnership with busy architect. College trained in architecture, engineering and law. Can handle all branches of the work on all classes of buildings. Located in New York. Box No. 416.

RECENT GRADUATE of college of recognized standing, B.S. degree in civil engineering, desires position. Located in New York. Box No. 417.

AMBITIOUS man, 22, one year training at Dunwoody Inst. Desires position with architect, builder or lumberman. Wages secondary. Ed. Luthi, 2008 Lyndale Ave. South, Minneapolis, Minn.

A MAN OF ARCHITECTURAL training with fifteen years' experience in England and Ireland is interested in making a connection with an architect's office in the United States or Canada. Frederick P. Lambert, "Barrie" 37 The Drive, Shoreham-by-Sea, England.

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The Dividends of Discrimination

By the simple act of specifying, and getting, the genuine drop-forged Von Duprin devices you secure the peace of mind which comes from knowing that the occupants of the building are safeguarded against panic disasters - - that they always can get out - - instantly! *A priceless dividend indeed,* yet with it comes the further knowledge that the higher first cost of the drop-forged Von Duprins will be offset, many times over, by an almost complete freedom from maintenance expense.

The utmost in safety and the lowest cost per year are dividends worthy of your attention.

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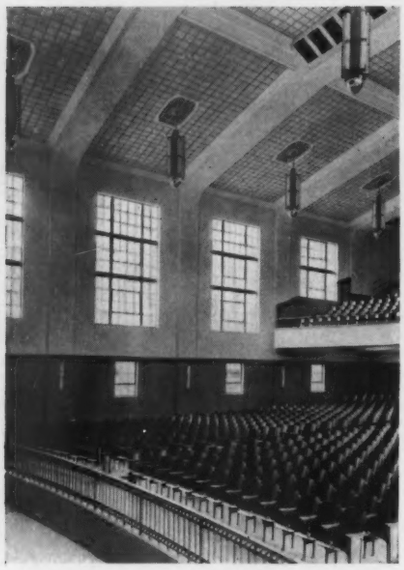
VALEDICTORY TO NOISE



THIS CEILING OF CORK STOPS NOISE, REFLECTS LIGHT, AND INSULATES

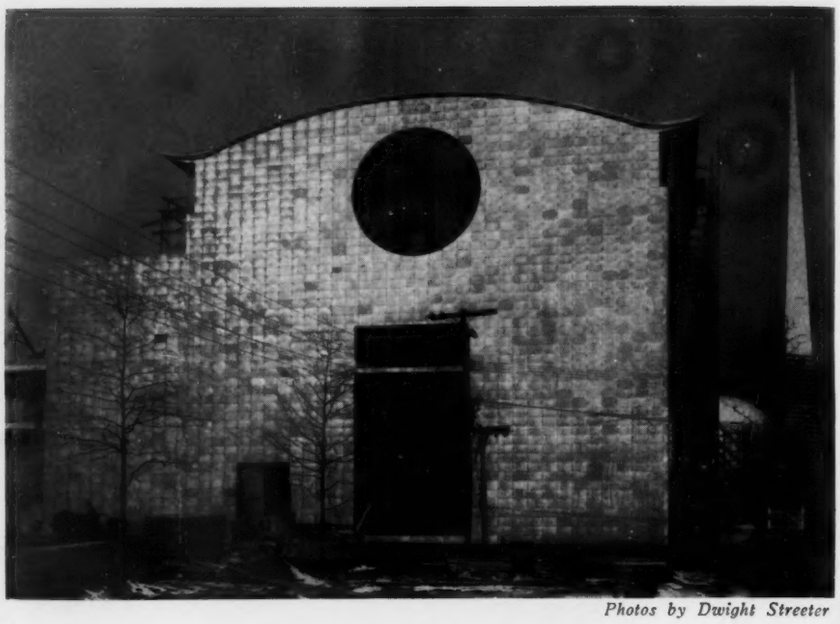
THIS ceiling in the University City (Mo.) High School auditorium demonstrates a few quick facts about Armstrong's Corkoustic—the cork noise-quieting ceiling for schools, offices, hospitals, gymnasiums, or any interior where noise-control is desired.

Corkoustic has a sound-absorption efficiency of 68% at a frequency of 512 cycles. That takes care of the noise. In addition, being made of cork, it has high insulating value. This not only prevents fuel waste in winter and keeps out heat in summer, but stops ceiling condensation where humidity is high—over swimming pools, for example.

The distinctive cork texture and pastel colorings make an attractive interior finish. Corkoustic has a high light-reflection value and is easy to keep clean—thus helping to improve lighting. And it is easily and economically installed in new buildings or old.

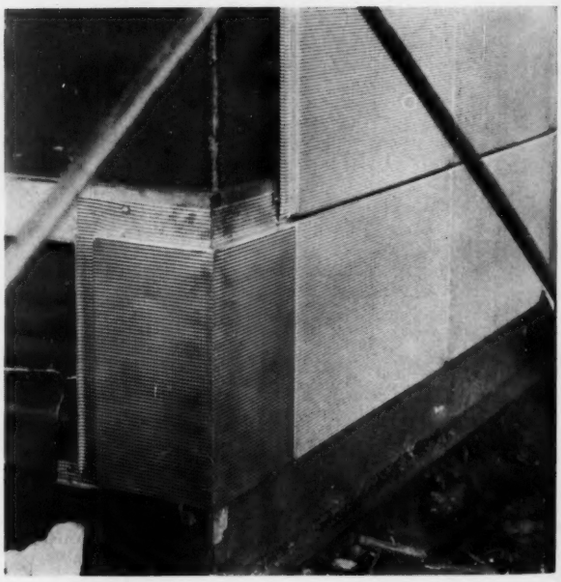
For full information, see *Sweet's*, or write for file-sized copy of *How to Reduce Noise*. Armstrong Cork Company, Building Materials Division, 1227 State Street, Lancaster, Pennsylvania.

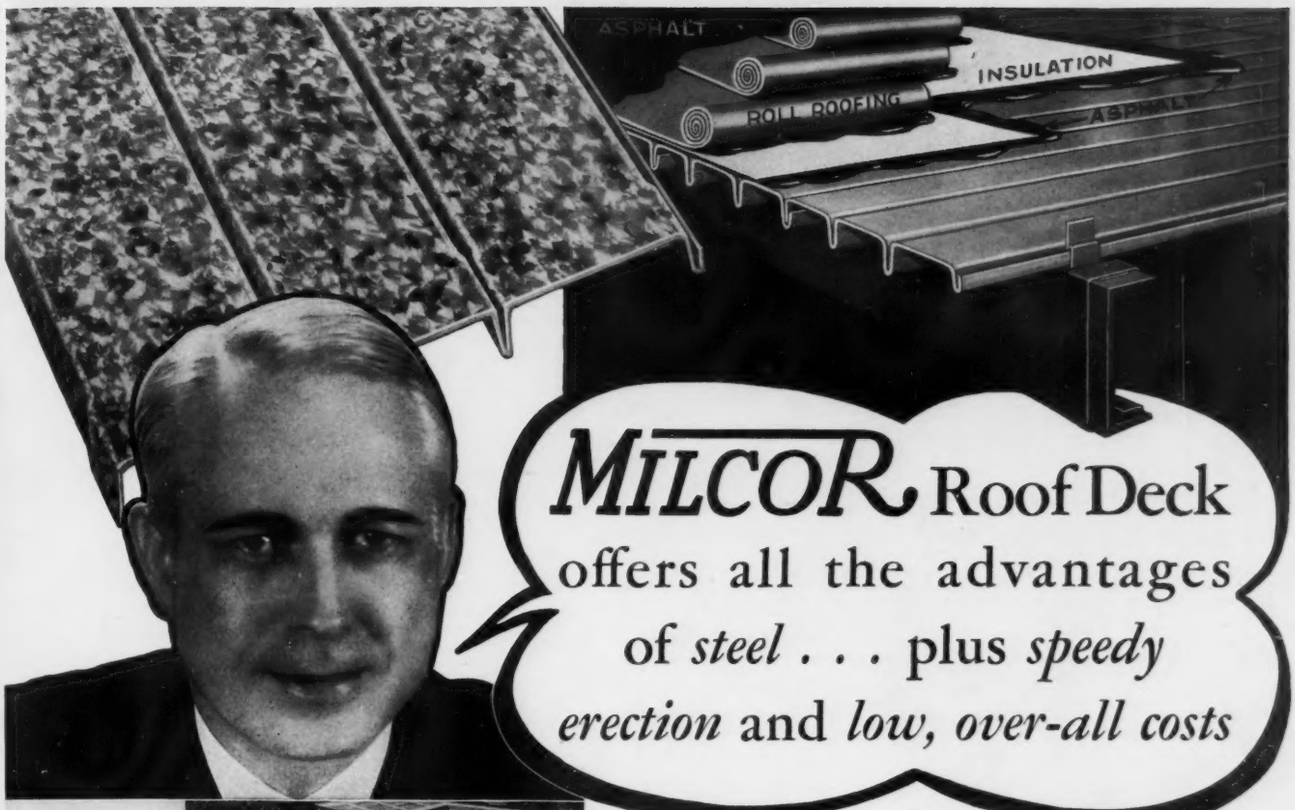
Armstrong's
CORKOUSTIC
for noise-quieting and acoustical correction



Photos by Dwight Streeter

Copper is strikingly shown in a new form — Anaconda Copper Wall Panels — on the outside of the General Electric Building at the New York Fair, designed by Voorhees, Walker, Foley & Smith. Close-ups show the simplicity of bending and attaching the interlocking sheets without kinks or buckling. As generation of artificial lightning will be featured here, the entire building will be grounded





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Fast application cuts costs

Quickly ready for roll roofing

. . . and that means long-run satisfaction of your clients

Where safety, permanence, and long-time economy are factors to be considered in your roof specifications, Milcor Steel Roof Deck offers you a practical, versatile material to help you do the best job for your clients.

This Milcor product — steadily growing in use on large and small buildings of all types — combines the permanence and fire-safety of *steel* with special Milcor construction features, for economy and speed in erection, and economy in maintenance.

Jobs go through on fast schedules with Milcor Deck. It is light in weight, easy to handle, and requires *relatively lighter and less costly supporting structure.* Easily attached —with clips or welding—to any structural member. Unique offset enables the erector to nest the sections in an amazingly short time, with the plates firmly interlocked.

F-68

Adaptable to any type of construction and to real insulation, with standard types of insulation board. Smooth deck provides a clean-cut appearance and longer life for roof covering. The roof stands for years as a tribute to your sound judgment in specifying Milcor.

Write today for your free copy of the Milcor Roof Deck Bulletin.

Unit of MILCOR SYSTEM of fireproof construction

Milcor here uses the word "system" in its true sense — not to signify a limited, inflexible set-up applicable only under certain conditions, but to represent so great a range of individual products, types, weights, metals, etc., that a complete, coordinated metal backbone can be designed to suit any condition of fireproof construction — all with Milcor products engineered to work together.

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In the commercial field, where security is the first rule for existence, there's little room for random selection of hardware and locks. Here functionalism is paramount. The unfailing dependability, the pleasing-to-the-eye yet practical design of Barrows appointments give architects the answer to what is best for business buildings. In your next commercial plans, specify security by Barrows.

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COMPETITION ANNOUNCEMENTS

In a current Bulletin, the Section of Fine Arts, recently made a permanent division of the Procurement Division, Treasury Department, announces a $29,000 national competition for nine tempera or fresco panels for the St. Louis Post Office.

The sum of $29,000 will be paid for nine murals, and this amount will cover the complete cost of execution and installation of the decorations.

All American artists are eligible to enter this Competition, and may secure a form announcement by applying to the Treasury Section of Fine Arts in Washington, D. C. A book on St. Louis, published by the Post Office, also has been offered to competitors by W. Rufus Jackson, Postmaster of St. Louis.

The designs will be judged in Washington by an advisory jury composed of Walter L. Rathmann, A.I.A., of the firm of Klipstein & Rathmann, St. Louis, Architects for the Post Office; and Mural Painters Howard Cook, of San Antonio, Texas; William Gropper, of New York; and Ward Lockwood, of Taos, New Mexico.

Announcement also is made in the Bulletin of two sculpture and four mural projects. Any artist who is an American citizen and is a resident of, or attached to, the State or States to which the competition is limited, is eligible to enter one or more of the competitions.

The Sculpture Competition includes:

CALIFORNIA—*Los Angeles Post Office and Court House,* Two Sculptures, $7,200. American artists are eligible to enter this competition if they are resident of, or attached to, the States west of the Mississippi River. For full competition data application must be made to the Chairman of the Committee, E. C. Maxwell, Director of the Foundation of Western Art, Los Angeles, California. The competition closes August 1, 1939.

The Mural Competitions include:

TEXAS—*Amarillo, Texas, Post Office and Court House,* Mural Decorations on four walls of lobby, $6,500. American artists are eligible to enter this competition if they are resident of, or attached to, the States of Arkansas, Colorado, Kansas, Louisiana, Mississippi, Missouri, New Mexico, Oklahoma, or Texas. Artists may secure form announcements by writing to Mrs. Henry Earl Fuqua, Committee Chairman, 1905 Harrison Street, Amarillo, Texas.

NORTH CAROLINA—*Wilmington, North Carolina, Post Office and Court House,* One Mural, $2,300. American artists are eligible to enter this competition if they are resident of, or attached to, the States of District of Columbia, Maryland, North Carolina, South Carolina, or Virginia. For full competition data artists must apply to the Chairman of the Committee, Miss Elizabeth Chant, of Wilmington, North Carolina. The competition closes May 10, 1939.

NEW YORK—*Poughkeepsie, New York, Post Office,* Two Murals, $4,200. American artists are eligible to enter this competition if they are resident of, or attached to, Ulster or Dutchess Counties, New York. The competition closed on April 1, 1939.

KENTUCKY—*Berea, Kentucky, Post Office,* One Mural, $740. American artists are eligible to enter this competition if they are resident of, or attached to, the State of Kentucky. Form announcements may be secured, after April 1, from the Chairman of the Committee, Miss Mary L. Ela, Department of Fine Arts, Berea College, Berea, Kentucky.

Productive Homes

Concluding the first stage of the Productive Home Architectural Competition—entered by 506 architects, landscape architects, engineers, and students in all parts of the country—55 architects were chosen early last month to enter the second stage of the $10,000 competition. Their final drawings, submitted April 3, will be judged April 14 and results will be announced in the May issue.

Preparatory to competing for the $1,000 prizes offered for the best designs from the Northeast, South, Middle West, Northwest, and Southwest, the 55 finalists were allowed to vote for two prominent architects to be added to the Jury for the initial stage, which was composed of Frederick L. Ackerman, F.A.I.A., New York; Baker Brownell, Ph.D., Evanston, Ill.; Margaret J. Suydam, New York; Burnham Hoyt, A.I.A., Denver; and the Rt. Rev. Luigi L. Ligutti, Granger, Iowa. Finalists who do not win the regional prizes will be awarded $100 each.

There were 159 designs submitted for the Northeast, 97 for the South, 130 for the Middle West, 56 for the Northwest, and 64 for the Southwest.

The judges announced the following winners, designing homes for the various regions:

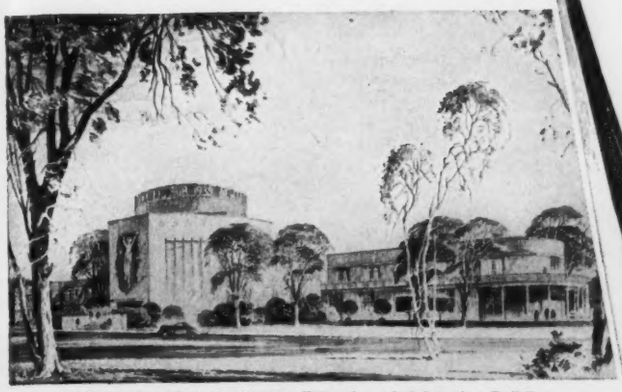
NORTHEAST: Berninger and Bower, Jenkintown, Pa.; William Bigos, Pittsburgh, Pa.; Robert F. Bishop, Germantown, Pa.; William White Carver, New York; Milton H. Caughey, New York; Alexis Dukelski, New York; Malcolm Graeme Duncan, Short Beach, Conn.; William Hajjar, Pittsburgh, Pa.; Raymond Viner Hall, Port Allegheny, Pa.; Reuel B. Kenyon, Detroit, Mich.; Morris Ketchum, Jr., New York; Walter Bradnee Kirby, and Harry C. Starr, New Canaan, Conn.; William C. Livingston, Jr., Edgewood, Pa.; Raymond J. Percival, Hartford, Conn.; Henry Poli, Pittsburgh, Pa.; and Jacob Tracht, Pittsburgh, Pa.

SOUTH: Thomas J. Biggs, Jackson, Miss.; Evans, Moore and Woodbridge, New York; Theodore Fletcher, Wilmington, Delaware; William A. Ganster, Arthur Hennighausen, and Mertze Koski, Waukegan, Ill.; Robert M. Little and Robert E. Hansen, Fort Lauderdale, Fla.; Frederick T. Loeffler, Jr., Pittsburgh, Pa.; Rudolph A. Matern, Woodlawn,

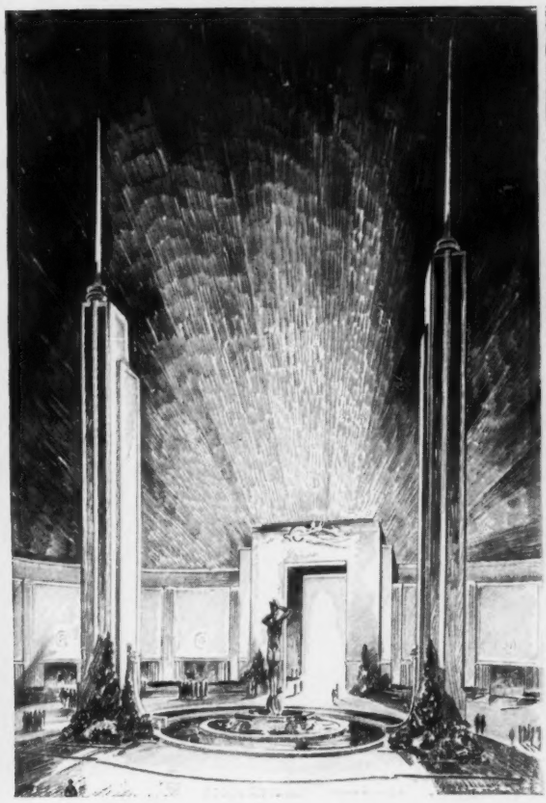
(Continued on page 58)

THE WORLD OF TOMORROW

started with a pencil

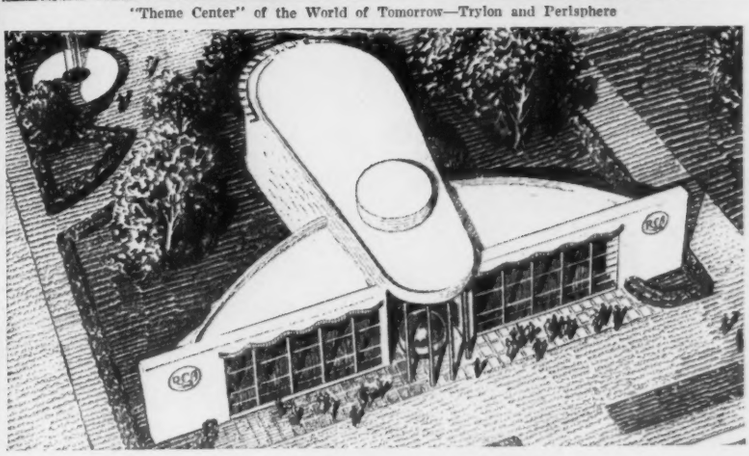


"Nerve Center" of the World's Fair—the Administration Building.



"Railroads on Parade"—the Railroad Building.

"Theme Center" of the World of Tomorrow—Trylon and Perisphere



R. C. A. "Radio Tube"—Unique Fair Building.

WITH the opening of the New York World's Fair, visitors from every corner of the earth are to gaze upon architectural achievements that will set the pace for years to come.

Let's go behind the scenes for a moment. In drafting rooms what indispensable tool-of-genius helps put such dreams on paper? . . . Why the pencil, of course. And, in leading drafting rooms, it's the Venus Drawing Pencil—the pencil of today and tomorrow.

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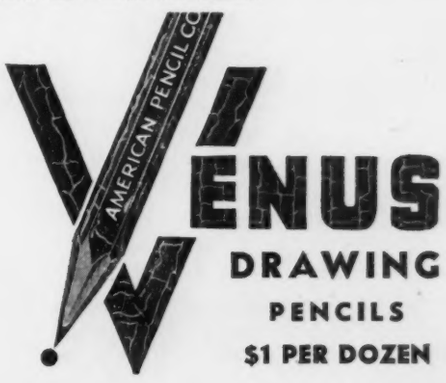

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SECTIONS 1-7

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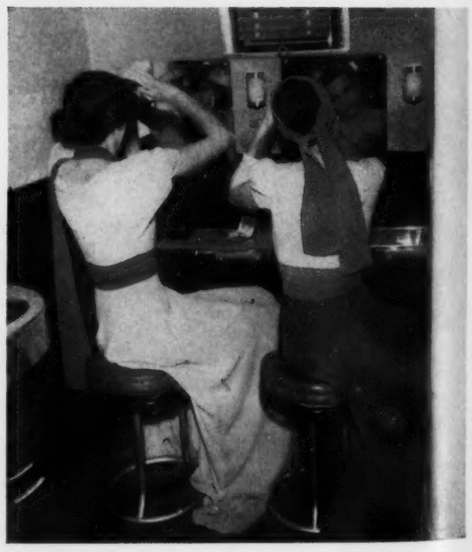
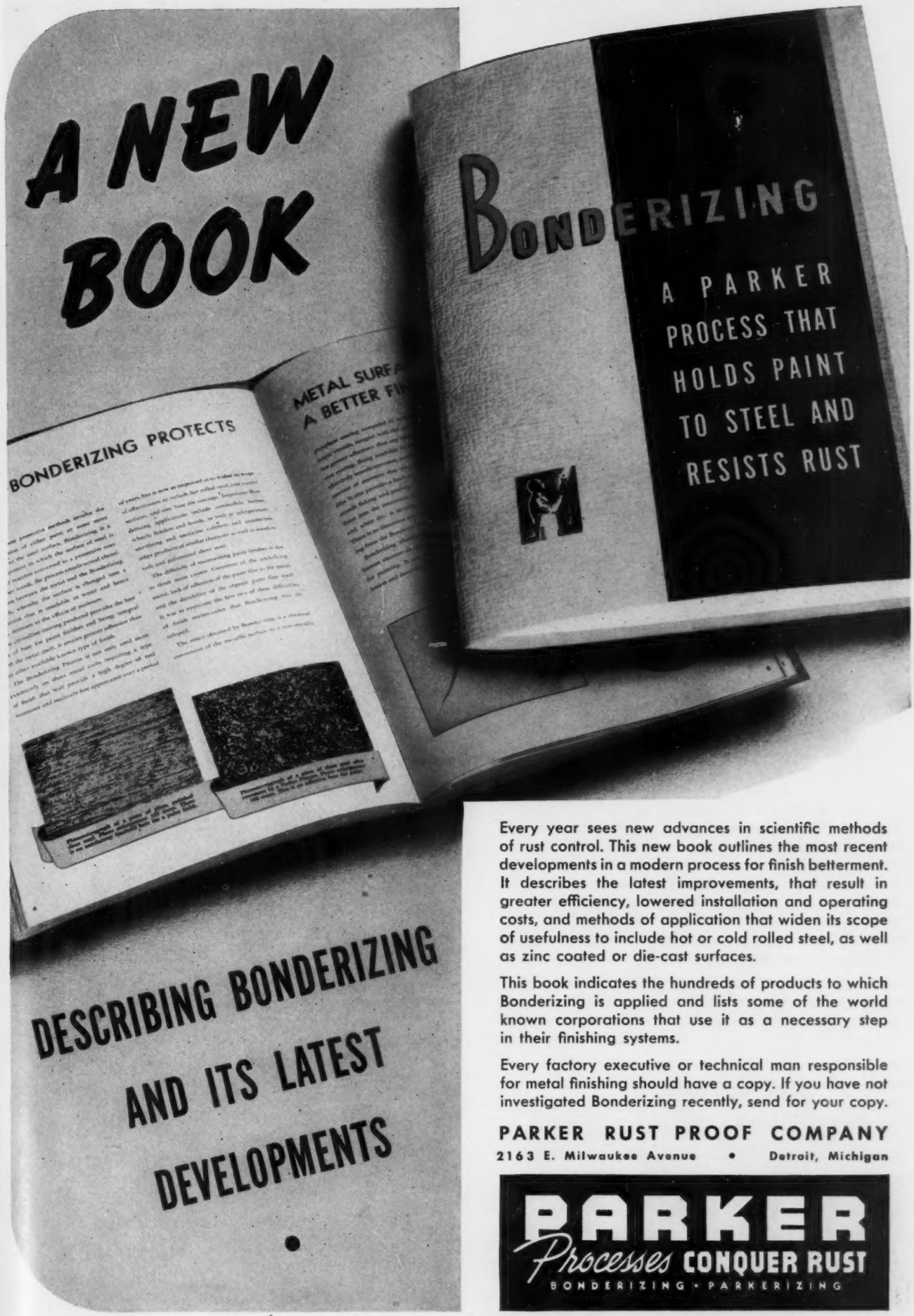


Economy of space and weight are important factors in plane design, as shown by these interiors of the Pan American Airways 74-passenger "Yankee Clipper" which made its shakedown flight across the Atlantic last month; but stability and spaciousness are emphasized by cheerful colors and furnishings designed throughout by Howard Ketcham, Color and Design Consultant for Pan American, United Air Lines, E. I. duPont de Nemours & Co., Barber Asphalt Corp., and others. Lounge, at top, becomes a diner at mealtimes. At night passenger compartments are fitted with berths made from the seats. The dressing room, below, is convenient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This book indicates the hundreds of products to which Bonderizing is applied and lists some of the world known corporations that use it as a necessary step in their finishing systems.

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58 Second Avenue, Brooklyn, N. Y.

(Continued from page 54)

L. I.; Arch R. Winter, New Orleans, Louisiana; Rodolfo Moore, Bloomfield Hills, Mich.; Otis and Lea, Louisville, Ky.; Raleigh C. Powell, Jr., Petersburgh, Va.; and Stanley C. Reese, Washington, D. C.

MIDDLE WEST: George D. Conner and H. G. Horne, Washington, D. C.; Leonard James Currie, Cambridge, Mass.; George W. Edwards, Pittsburgh, Pa.; William Ganster, Arthur Hennighausen, and Mertze Koski, Waukegan, Ill.; H. L. Guttman and J. E. Bollum, Minneapolis, Minn.; Andre Halasz, New York; Collis Hardenbergh, Minneapolis, Minn.; Henry Erlandsen Hebbeln, Bloomfield Hills, Mich.; Walter Preston Hickey, Birmingham, Mich.; Arthur J. Kelsey, Cincinnati, Ohio; H. Samuel Krusé, Chicago, Ill.; Thomas A. Madden, Chicago, Ill.; Harry Weese, Bloomfield Hills, Mich.; and Rudolph W. Wendelin and Malvern B. Pennock, Washington, D. C.

SOUTHWEST: William S. Burgett, Norman, Okla.; E. Michael Czaja, Chicago, Ill.; George W. Edwards, Pittsburgh, Pa.; Peter and Stubbins, Boston, Mass.; Lawrence C. Test, Pasadena, Calif.; Lois W. Worley and William W. Caudill, Cambridge, Mass. (2 prizes).

NORTHWEST: John Ekin Dinwiddie, Garrett Ekbo, and Albert Hill, San Francisco, Calif.; Charles D. James, Monterey, Calif.; Frederick L. Langhorst, San Francisco, Calif.; Francis Ellsworth Lloyd, San Francisco, Calif.; M. W. Melzian, Moscow, Idaho; and J. R. Sproule, Seattle, Wash.

Walter Sanders, A.I.A., is the Professional Adviser, and Elliott Taylor is Competition Manager.

Smithsonian Gallery

An announcement of important revisions of the Program for the Smithsonian Gallery of Art Competition—notably a decision to permit the winning Architect to have working drawings and specifications prepared in his own office under supervision of the Procurement Division, Treasury Department — and extension of the registration period until April 10, went to all participants in the competition late last month.

The Program originally provided that the actual working drawings, specifications, etc., would be prepared in the Procurement Division drafting rooms. Various groups and members of the profession have expressed objections to this plan, however, and the modification of the Program is announced in Bulletin Number III, available to all participants. It is again provided, however, that the working drawings may be prepared in the Procurement Division offices, with the Architect retained as Consultant, if he prefers; and the right is reserved to recommend this procedure if the Professional Adviser considers it more desirable, because of the winning Architect's lack of facilities or experience to carry out the work in his own drafting room.

The Commission directing the competition also has set $88,500 as the Architect's fee; the prize money being considered a payment on this sum and other payments being made in accordance with an approved schedule.

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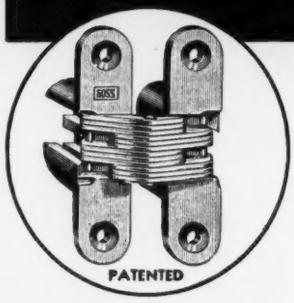

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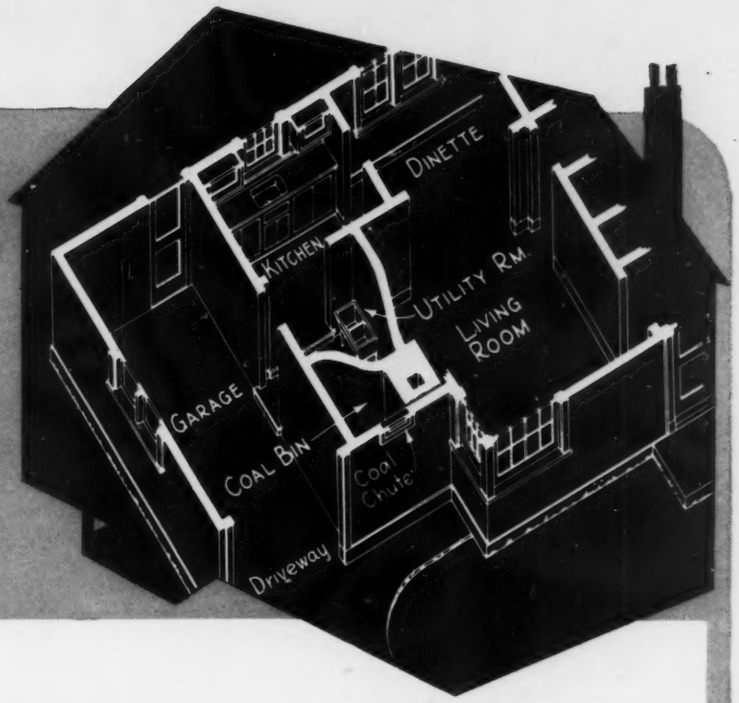
HOW TO PLAN

FOR THE UNIVERSAL FUEL IN THE BASEMENTLESS HOUSE . . .



One important factor that should never be overlooked in planning economical basementless houses is *operating cost*. Most families who buy such houses must watch every penny. They must have low cost houses. They must have small payments on those houses. But all that they can save on fixed charges may quickly be eaten up by operating costs. In no way is this more likely than by expenditures for high-priced fuels, particularly in very cold weather.

The low cost, universal fuels, bituminous coal and coke, fill a very definite need in low cost homes. The extra expense of providing storage space for them is a small initial expenditure. The savings from lower fuel costs soon amortize the cost of the additional space. Then the owner enjoys low cost fuel indefinitely.

Planning basementless homes for the modern use of bituminous coal or coke follows the fundamental principle of planning homes for modern, economical heating. The 1939 Basement Plan Book contains several plans and isometric drawings of basementless homes designed for modern bituminous coal heating. A copy of this helpful book will be sent you on request.

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The Nation-Wide Organization of Bituminous Coal Producers

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WESTERN OFFICE: 307 N. MICHIGAN AVENUE, CHICAGO, ILLINOIS

Please send me a copy of your Free Booklet "*The 1939 Basement Plan Book*," A. I. A. File 30-G.

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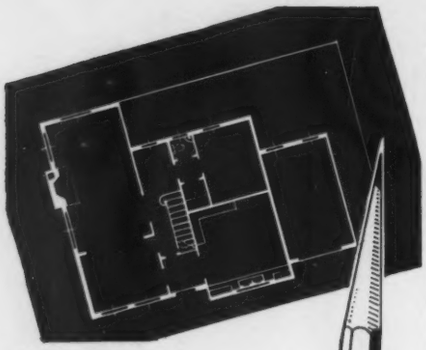

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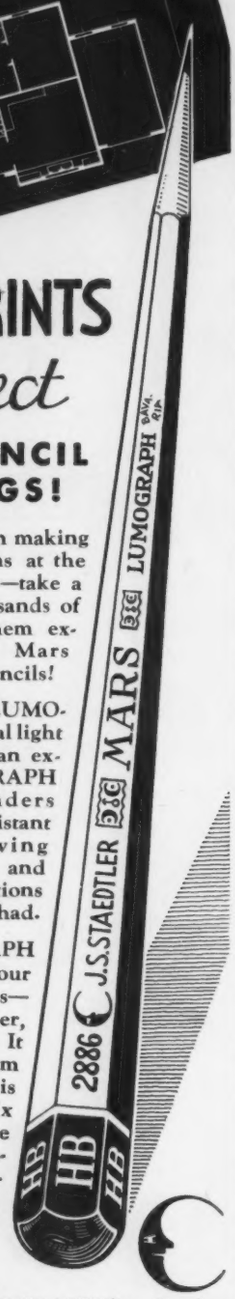

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FOREST HILL PARK—A REPORT ON THE PROPOSED LANDSCAPE DEVELOPMENT, *by A. D. Taylor, Landscape Architect, President of the American Society of Landscape Architects (privately printed, 104 pages 7½" x 10½", illustrated).*

Of interest to park officials throughout the country—particularly to Landscape Architects, City Planners, and Architects—is the proposed development of Forest Hill Park in East Cleveland and Cleveland Heights, Ohio. Any new city park of 267 acres will interest more than these specialists, for, in recent years, to all citizens has come a new appreciation of the value of parks in our plan of living. They are the most democratic of our institutions, satisfying the great variety of recreational needs of all classes.

Again John D. Rockefeller, Jr. has shown himself to be a friend and benefactor of the park movement by deeding, for park use, the old residence estate which had been occupied for thirty-five years by his father. To the conspicuous example of Fort Tryon Park on the Hudson, familiar to all metropolitan beauty lovers, will now be added another great city park, which starts "from scratch" with a fine heritage of careful landscape development of its rolling, wooded terrain.

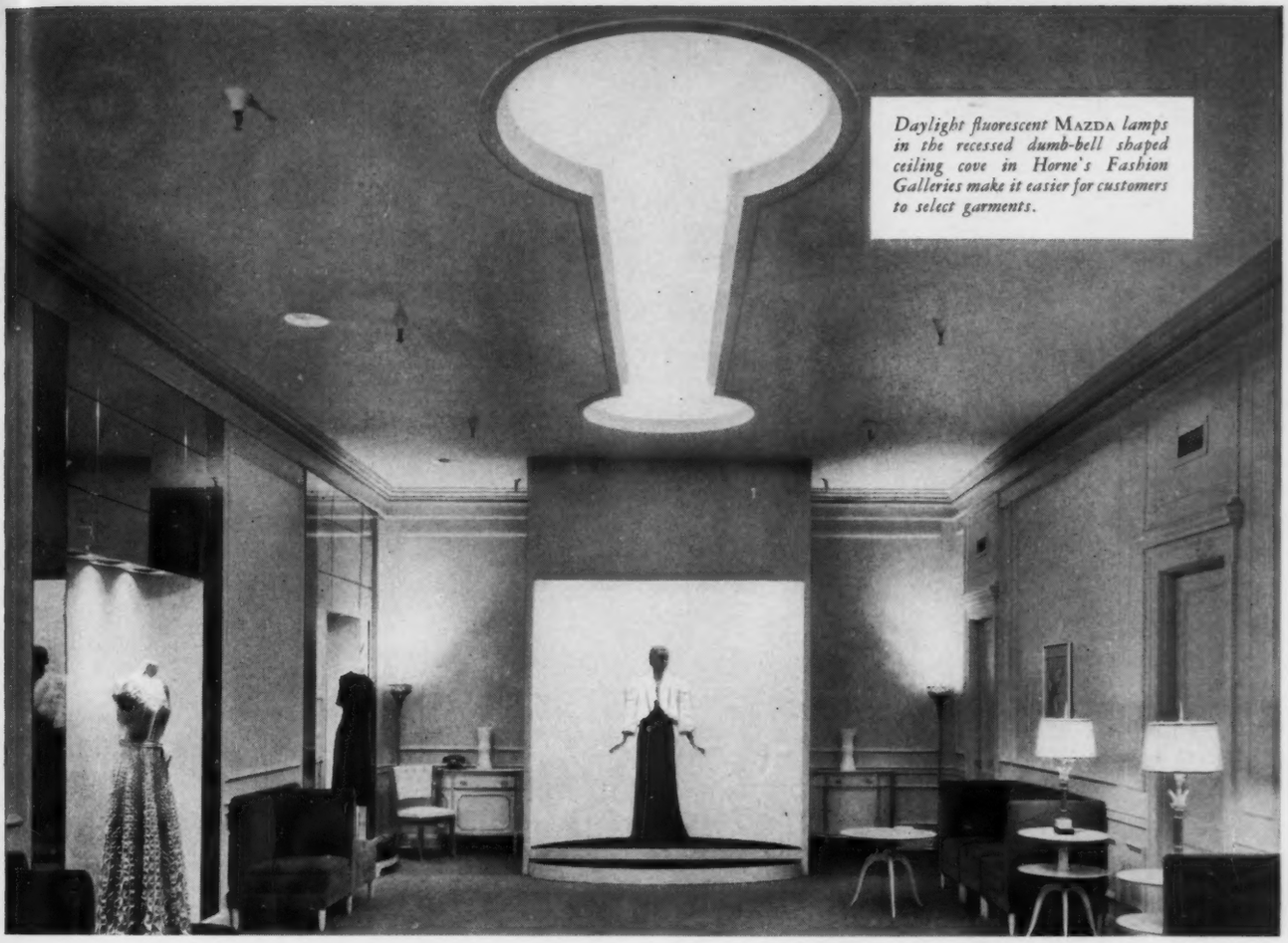
A. D. Taylor, noted for his work in Cleveland and the Middle West, has been chosen by Rockefeller to design the park. He has summarized a period of careful investigation and the proposed landscape development in an excellently presented report. The brochure, which is a worthwhile acquisition to anyone's landscape library, presents, in logical sequence, analyses of the problem and proposals for its solution. It is especially effective in its "before-and-after" views, which include careful renderings of the proposed treatment of areas, accompanied by photographs of the areas as they are at present. And, too, the survey of existing conditions, adequately presented by maps, photographs and text, will serve as an historical record for those who, enjoying the finished park in the future, will want to retrace its evolution.

The plans and the text relating to them, together with the photographs and sketches, form a definite structure on which the fundamental development of the park may be based. It is encouraging to see such careful, detailed park planning, and this report should serve as an example for governmental bodies (whether they be federal, state, county or municipal) who, today, are awakening to their recreational obligations to the citizens.

This fundamental park scheme, preserving a proper balance between active and passive recreation, is commendable. It places the former on the margins where active youngsters will be intercepted and their excessive energy worked off in healthful play rather than in covert vandalism. This perimeter treatment is one which has been adopted as a standard in the planning and replanning of New York City parks. It is well exemplified by the eighteen marginal playgrounds which have been placed around the outer boundaries of Central Park. The interior of the park, with fine mature trees, has been carefully treated to establish long vistas of greensward, creating the contrasts of light and shade so necessary in successful landscape composition. To the credit of the landscape architect, he refrained from misguided public pressure for motor-roads through the park. While bowing to necessity in continuing an arterial boulevard which more or less bisects the area, he eliminates it as a hazard by a well-placed and well-planned pedestrian bridge. He is also to be commended for having elected to discontinue the nine-hole golf course, which the elder Rockefeller enjoyed during his years of tenancy, frankly recognizing that its use was entirely impracticable because of the hazards which would be created for the throngs desiring to use the great open meadow for general recreation. He adds, in the report: "There is also further justification for its discontinuance because of the limited number of people for whom such an area can provide recreational activity in the form of a golf course, as compared with the thousands who can to excellent advantage use this area for the many recreational activities other than golf." Taylor is right. A city park in a built-up section is no place for golf courses; they should be located in outlying, thinly populated areas.

The type of structures designed to meet the recreation requirements of the public indicates a substantial and appropriate park architecture in which native masonry and timber are fittingly combined. These structures will settle comfortably among the lofty old oaks, in the shade of which they are proposed to be placed; and with refinements in detail, furnished by the architect who will be chosen for their final design, they will give the park

(Continued on page 63)



Daylight fluorescent MAZDA *lamps in the recessed dumb-bell shaped ceiling cove in Horne's Fashion Galleries make it easier for customers to select garments.*

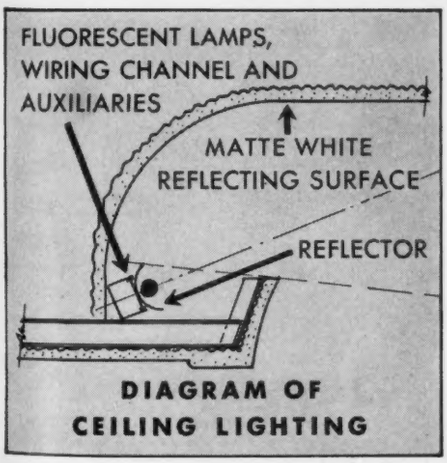


DIAGRAM OF CEILING LIGHTING

G-E Fluorescent MAZDA *lamps are now made in 18, 21, 36, and 48" lengths and in several wattages. Because they are essentially arc lamps, they require special control equipment, now available.*

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Joseph Horne's Pittsburgh store offers a good example of the effective use of these new lamps in the recessed dumb-bell shaped ceiling cove where they provide general illumination with a daylight quality.

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From the Forest Hill Park Report

Especially effective as illustrations of the Forest Hill Park Report by A. D. Taylor are his "before-and-after" pictures such as the three at the left. A photograph of a ravine, and pipe which cannot be removed, is shown with the author's sketch of his solution for this problem. Below is a sketch of one of the park streams, characteristic of his great care in studying the details of the setting, and a beautiful development

(Continued from page 60)

an interesting and integrated architectural character.

This is an interesting example of collaborative planning in which the Landscape Architect merely indicated sketchily the appropriate type of building, leaving to the Architect the actual development of the problem. It is this cooperative planning among the three construction professions of Landscape Architecture, Architecture and Engineering that has been responsible for the success of many of the public park developments in the national park program. This is notably true of the municipal park program of the past five years under the direction of Robert Moses in New York City. May we have more examples of comprehensive park planning, well in advance of construction!

ALLYN R. JENNINGS
General Superintendent
City of New York Parks

LETTERS AND LETTERING, *by Paul Carlyle and Guy Oring, with a foreword by Herbert S. Richland ($4.00, 128 pages 10½" x 8¼", Wire-O Bound—McGraw-Hill Book Co., Inc., New York).*

LAYOUTS AND LETTERHEADS, *by Paul Carlyle and Guy Oring—text by Herbert S. Richland ($5.00, 151 pages 10½" x 8¼", Wire-O Bound —McGraw-Hill Book Co., Inc., New York).*

The first of these two books, "*Letters and Lettering,*" is further subtitled, "*A money-saving classic for anyone who creates, buys, or uses hand lettering.*" Taking its theme from Shakespeare in his remark anent the poverty of the impatient man, this treats of the construction, proportion, and the creative force that lie behind good lettering. Written as it is, for the commercial artist in all branches of endeavor, all styles of lettering come in for their due share of attention.

Basically, this is a collection of alphabets, with the first twenty-odd pages devoted to lucid expositions of achieving the quality, the spacing, and the "feel" that are needed to earn lettering its place as an art form. While by no means essential to the conduct of an architectural career, "Letters and Lettering" can, through its unusual approach to letter forms and lettering, add some small increment to the full enjoyment of design studies.

Of "*Layouts and Letterheads,*" the companion book, there is perhaps even less to be said from the architect's point of view. Bear in mind that both of these books were designed by advertising artists. Their primary appeal

(Continued on page 64)

LAMICOID simplifies design and installation!

1 Lustrous surfaces of Lamicoid are cleaned like glass, making it especially suitable for walls, counterface and base boards. Counter and table tops are of Metalcore Lamicoid.

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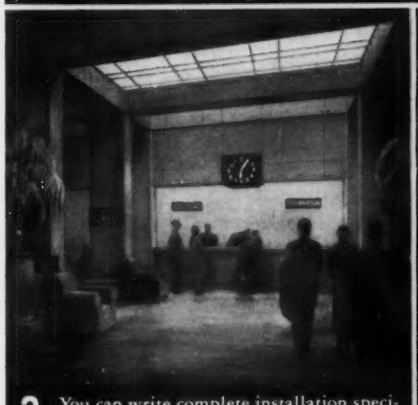

3 You can write complete installation specifications for modern interiors in a wide range of colors and natural woods. Also Luminous Ceilings and Signs.

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GET THIS COMPLETE DATA ON THE USE OF LAMINATED PLASTIC MATERIALS

When you are designing and specifying Lamicoid laminated plastics for structural or indirect lighting work, you will find this book an invaluable aid. Compiled and edited by Vahan Hagopian, A. I. A., it contains complete installation details, section drawings for joints, fastenings and trim as well as 8 sample interior and exterior designs. We will gladly send you a copy.

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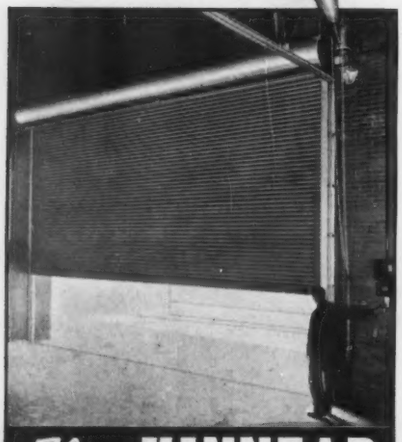
*MOTOR OPERATION



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Agents in all principal cities

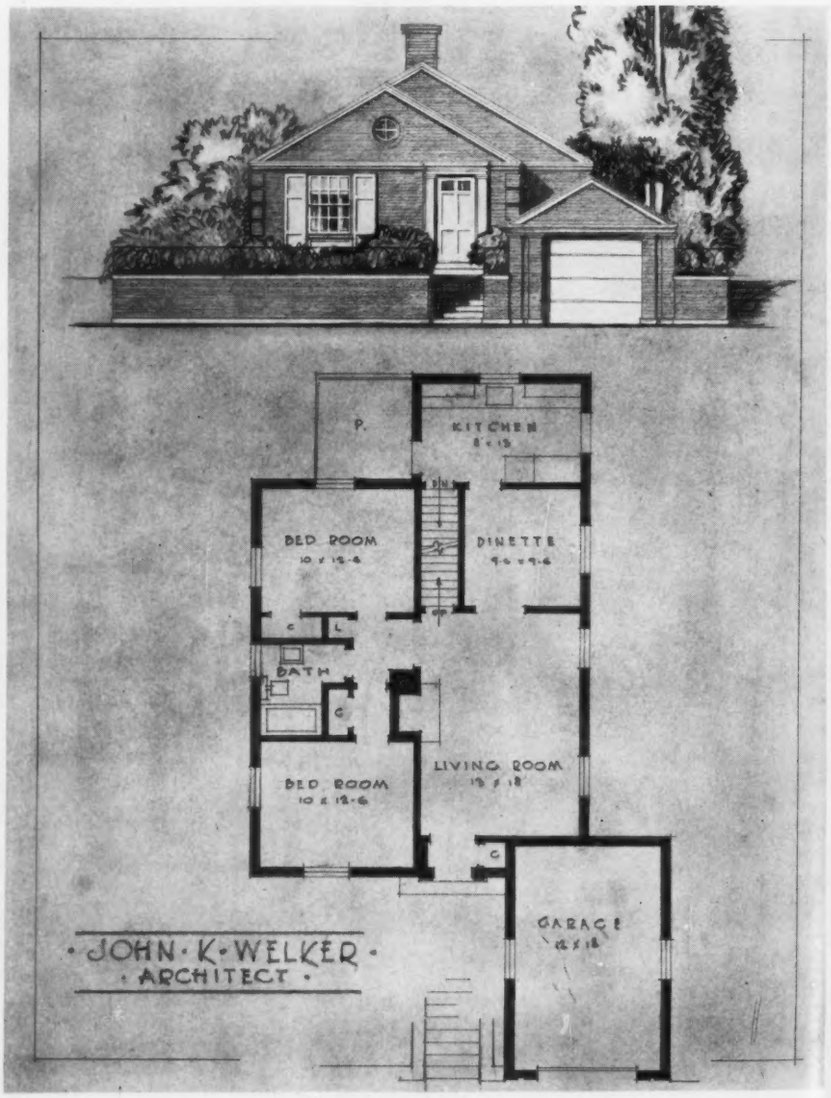
(Continued from page 63)

would naturally be most exerted on brother craftsmen in related branches of design. However, no additions to, or surveys of, any field of design should escape the notice of any serious practitioner in architecture. Much of the newer experimentation in mass balance, rhythm, eye-motion, and the like, is being done by the brethren who labor in the vineyards of advertising.

The writer, standing at a midway point, confesses to a feeling that perhaps designers in architecture will some day discover new values in advertising design. It is safe to say that the basic principles of both were once the same, and that the methods now in use by the two stem from a common source — the emotional impressions made on fellow humans by a gifted utilization of space, mass, and color.

Lest this be construed as a defensive argument, let me recall Robert Louis Stevenson's division of the arts into *representative* and purely *presentative* phases. While architecture "presents" and literature "represents," advertising when well done accomplishes *both* in the minds of its perceptors. And, insofar as advertising is purely *presentative*, it has a lesson which architecture can learn. Again I say that, while "Layouts and Letterheads" is of no direct use to architects, it can teach a lot to those who would learn. F.S.

The office file of John K. Welker, Architect, of Mineola, Long Island, N. Y., includes an exceptional variety of sketches for small houses such as the one reproduced below; as he has adopted the practice of having black-line prints made of his 1/8" scale designs, and coloring these with pencils and white ink to suggest different materials which may be selected



Sixty-nine Guggenheim Memorial Fellowships

Sixty-nine Fellowships, totaling $150,000, have been announced by the John Simon Guggenheim Memorial Foundation. The recipients of the Fellowships were chosen in the Foundation's fifteenth annual nationwide competition from more than 1,000 applicants.

Artists who were granted Fellowships, upon the recommendation of a Jury composed of Gifford Beal, Boardman Robinson, and Eugene Speicher, Painters, and James Earle Fraser, Sculptor, are: David Fredenthal, 24-year-old Painter, of Franklin, Michigan; Eugene Trentham, 26-year-old Painter, of Denver, Colorado; John McCrady, 27-year-old Painter, of New Orleans, who will paint the Negro life of the Deep South; Harry Wickey, Etcher and Sculptor, of Cornwall-on-Hudson, New York, who will depict life on the streets and in the parks of New York City; Janet de Coux, Sculptor, of Gibsonia, Pennsylvania; Adolf Dehn, Painter, New York.

The Guggenheim Fellowships are granted to scholars and artists who by their previous work have shown themselves to be persons of unusual ability.

Makes the News

Members of the architectural profession who have resigned themselves to being snubbed by newspaper men—even the Building News editors, who welcome effective drawings but usually neglect to mention who furnished them—may have felt a touch of envy last month when Harry Francis Cunningham, A.I.A., of Washington, D. C., received special attention in metropolitan dailies following his resignation as Associate Architect for the proposed $1,000,000 German Embassy.

Expressing dissatisfaction with the "dilatory tactics" of the German architects commissioned to design the embassy, Cunningham complained in a published letter to Dr. Hans Thomsen that the German Government had never acknowledged the contract he signed as Associate Architect, and took the opportunity to censure "lawlessness" and "the astounding events of the past few days" as being "so offensive to my solidly-founded American ideals that it is impossible for me to be of any further service to your government."

Friedsam Medal

The award of the Friedsam Gold Medal to John D. Rockefeller, Jr., has been announced by The Architectural League of New York. This award is given annually, under the auspices of the League, for conspicuous service in the advancement of the Arts.

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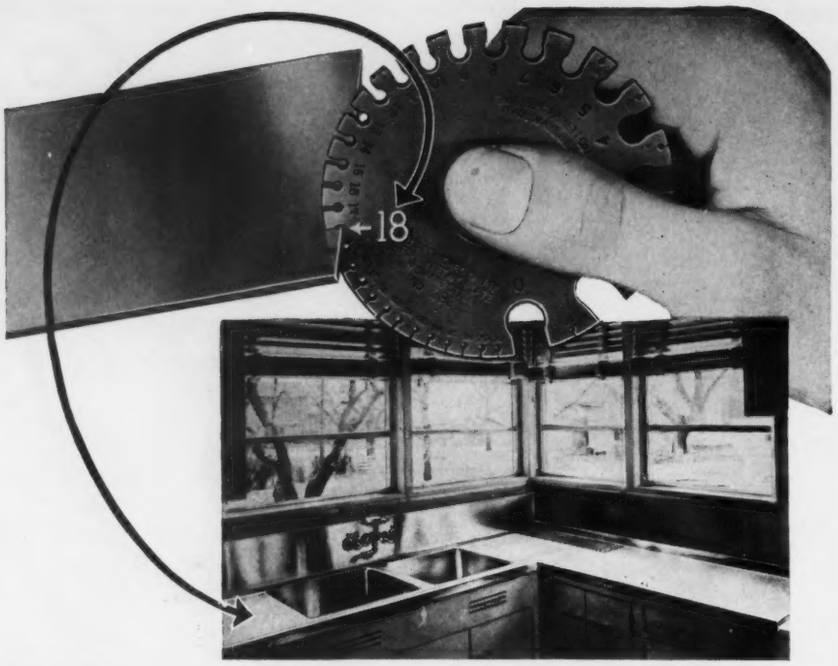

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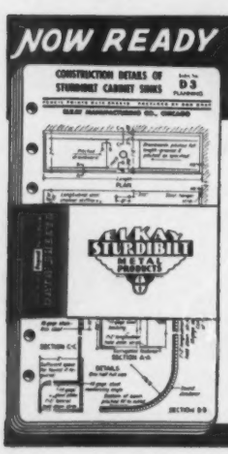

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Philadelphia Groups Announce Exhibition

An exhibition of architecture and its allied arts will be held April 20 through May 7 at the Philadelphia Art Alliance, 251 South 18th Street, Philadelphia, it has been announced. The show will be under the joint management of The Art Alliance, the Philadelphia Chapter, A. I. A., and The T-Square Club of Philadelphia.

The exhibition will be composed of drawings and models of proposed and executed work in architecture and landscape architecture; sketches, models, and finished examples of decorative and monumental sculpture; and photographs of executed work in all of the above branches.

The following material also will be included in the exhibition:

A group of maps and drawings illustrating the Low Rent Housing Projects now being forwarded by the Philadelphia Housing Authority. There are now three groups of private architects completing drawings for low-rent projects of the Philadelphia Housing Authority, totaling about $7,000,000. This exhibit will demonstrate what areas are to be developed later by other architects under the direction of the Authority.

An entire series of architectural drawings, chronologically arranged, for a small house, showing the architect's earliest sketches, his preliminary drawings, the final working drawings, and full size details. The house is one executed by Edmund Gilchrist, Architect, of Philadelphia.

A similar exhibition showing the development of drawings for a larger building will consist of drawings for the Philadelphia Reserve Bank, for which Paul P. Cret was the Architect. It is believed by the sponsors that these exhibits will help to give the layman some idea of the scope of the architect's services.

A Memorial Exhibition of the work of the late Charles Z. Klauder, of Philadelphia; as well as selected student work in Design and Construction from the School of Fine Arts of the University of Pennsylvania.

Beside the work of Philadelphia architects, the work of a number of invited exhibitors outside the city will be represented: Richard Neutra, of Los Angeles, Holabird and Root, of Chicago, and Perry, Shaw and Hepburn, of Boston, Architects for the Williamsburg Restoration.

While the galleries will be open to the public beginning April 20, an Exhibitor's Dinner will be held at the Art Alliance on the evening of the 19th, at which time the Gold Medal of the Philadelphia Chapter of The American Institute of Architects may be awarded. This honor has not been bestowed on any architect since 1930.

The Jury of Selection has already completed its work. The Jury of Award, whose selection will be announced the night of the Architect's Dinner, are Paul A. Davis, III, Chairman; William J. H. Hough; and William C. Perry, of Boston. In addition to the award of the Gold Medal of the Philadelphia Chapter, there will be Mentions given to other outstanding work displayed in the exhibition.

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NEW PRODUCTS
Changes in Personnel, etc.

NEO-CLASSIC VENETIAN BLINDS

An authentic new note in window decoration, the Neo-Classic Venetian Blind, has just been introduced by the Rolscreen Company, Pella, Iowa.

The wider, 3″ slats of this new blind provide broad, horizontal lines that harmonize with modern wide window treatments, while this same characteristic makes narrow windows appear wider.

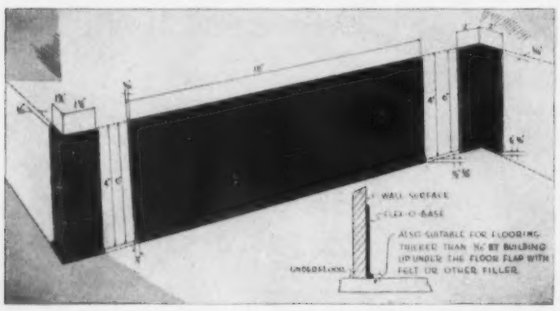
This blind is a modern interpretation of the original Venetian blind, as it was first introduced in England during the Georgian period of architecture.

Neo-Classic blinds also provide practical, as well as decorative advantages, for they offer a definitely better control of light and ventilation. This is due to the fact that Neo-Classic slats are noticeably wider and consequently about one-third fewer slats are actually needed. The Neo-Classic Venetian blinds are custom-made in all sizes, and come in 34 different colors of tapes, cords and slats to match or harmonize with furnishings.

FLEX-O-BASE

A new moulded cove base has been recently introduced by David E. Kennedy, Inc., Brooklyn, N. Y. The new product, made of an asbestos composition, is flexible and can be bent around considerable curves. Flex-O-Base is obtainable from stock in moulded outside and inside corners, as well as straight pieces. It is extremely easy to install as no keying or underbedding is necessary. The contractor need merely cement it against the wall surface before laying the floor.

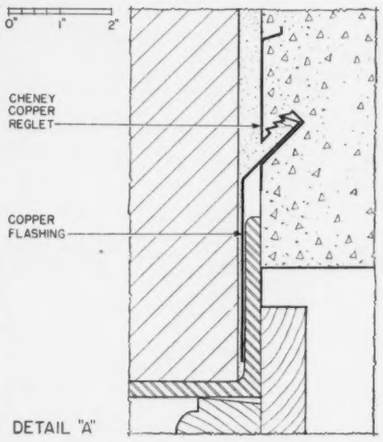
Flex-O-Base, which is said to be much less expensive



than previous wall bases, does not show mop marks or other wear. It resists alkalis, acids, and fire. The wide range of attractive colors in which the new cove base is obtainable, and its low original and installation costs recommend Flex-O-Base for many jobs where a wall base was previously considered impractical. Specifications and free samples are available from the manufacturer.

THE CHENEY SYSTEM OF SPANDREL WATERPROOFING

The Cheney System of Spandrel Waterproofing recently announced by Revere Copper and Brass Incorporated, 230 Park Ave., New York, is based on an entirely new and different principle.



Cheney flashing (16 oz.) or three-way flashing (10 oz.) is carried completely through the wall continuously around the entire building at the top of the spandrel beam as near as possible to the line of the finished floor. Cheney flashing reglet of 16 oz. copper is nailed to the forms so that a 45 deg. slot is formed at the bottom of the concrete beam just above the top of the lintel angle extending six inches beyond each end of the opening below. During construction, after the lintel angle is in place, a piece of plain copper flashing bent to detail is inserted full depth into Cheney flashing reglet, the upper surface of which is of saw-tooth design, thereby locking the flashing firmly into place.

IRON FIREMAN UNIT HEATMAKER

Announcement is made by the Iron Fireman Mfg. Co., Portland, Ore., of the introduction in May of the Unit Heatmaker, which converts fuel into the final form of useful heat. It is a plug-in appliance designed for urban and rural homes, and also for other buildings, such as small business structures, theaters, garages, schools, etc., which do not have central heating plants.

The Unit Heatmaker is a combination of a hopper-model automatic coal burner, a room-furnace, a forced circulator, and a humidifier. More than a stove or heater, it is a complete self-firing, self-regulating room furnace. It provides complete automatic temperature regulation, including night and day control, without the expense of a central heating plant.

The circulating fan in the 200-series Unit Heatmaker delivers 600 cu. ft. of air a minute at an average temperature of 250 deg. while the 400-series will deliver 1200 cu. ft. at the same temperature. Forced circulation provides more even temperature throughout the space that is heated. The temperature from floor to ceiling is more nearly uniform, since cold air is picked off the floor and circulated through the heater.

Great pains, it is stated, have been taken to insure dustless operation. The use of dust-treated coal is recommended. Special provision has been made for the removal of ash and clinker. An ash receptacle is installed inside the fire door, where it is sealed from the circulated air. The ash and clinker may be drawn over into the receptacle and allowed to cool in it. Fumes pass into the heater and not into the room. Also, a dust-tight hopper lid with a rubber seal is provided.

Hoppers of 200-series will hold 200 lbs. of coal, and hoppers of 400-series will hold 350 lbs. The 200-series is 27½ in. wide, 37½ in. long and 44¾ in. high. The 400-series is about 9 in. larger in all dimensions. Anthracite models are of a spill-over ash remover type. A spike-grabber removes foreign objects from coal. The shear-pin is overload protection.

MARLITE-CARSTENITE WALL PANELS

The Marsh Wall Products, Inc., Dover, Ohio, announces an important addition to its line of wall panels known as Marlite-Carstenite. It was created to meet the demand for a genuine wood-surface interior panel that can easily be applied. It consists of natural wood bonded to a yard fibre-board back with a 100% waterproof resin adhesive. Many delightful decorative effects can be achieved through the use of this new material.

The wood faces of Marlite-Carstenite represent, it is said, the most prized species of hardwood from forests all over the world. After careful selection, these veneers are laid and matched by master craftsmen. Marlite-Carstenite combines the beauty of natural wood with the ultimate in veneering technique. It provides low

cost dry-wall construction for homes, offices, restaurants, stores, shops. Marlite-Carstenite can be worked in all the ways that ordinary wood is worked. It will bend readily under suitable treatment to form curved surfaces; will not craze nor check, and remain flat when put in place.

Marlite-Carstenite will be sold and distributed to the construction and building field only through Marsh Wall Products, Inc., Dover, Ohio. It is available in unfinished, as well as prefinished, panels ready to install.

NEW DEVELOPMENT IN BIRD SHINGLE DESIGN

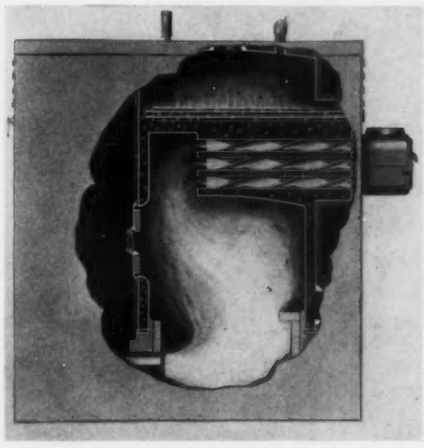
Bird & Son, Inc., East Walpole, Mass., manufacturers and distributors of roofing products, have just announced the development of Bird Master-Bilt thick butt and Weather-Tex thick butt shingles which represent two unusual features improving both the appearance and durability of thick butt shingles.

Through the use of narrower cut-outs and larger more coarse granules on the butts of the new Master-Bilts, Bird research men have succeeded in intensifying roof colors and creating a modern textured effect more in harmony with the architecture of the average present-day home. The coarse granules have been found, it is stated, by actual test, to offer unusually strong resistance against weathering.

Bird Master-Bilt 3-in-1 thick butt and Weather-Tex 3-in-1 thick butt shingles are being offered in both 12 in. and 15 in. widths.

FITZGIBBONS 400 SERIES STEEL BOILER

The Fitzgibbons Boiler Co. Inc., 101 Park Ave., New York, N. Y., announces the introduction of the Fitzgibbons 400 Series steel boiler designed and priced for small homes. It is made in three sizes beginning at 400 sq. ft. The boiler is designed for steam, vapor, vacuum or hot water heating systems, and it is constructed to operate with an oil burner, gas burner or stoker.



Two types of jackets are available, namely, the enclosing, in which the mechanical firing unit is completely concealed, and the standard in which the mechanical firing unit is outside of the jacket.

The following are the Fitzgibbons features which are incorporated in this new residential steel boiler: copper-steel welded construction throughout; large combustion area; rapid and free circulation of boiler water; easy to clean through removable doors; domestic hot water supply—tankless or with storage tankheater; heavy insulation applied right to boiler; refractory-lined service door; peep hole for burner observation; standard location for all controls; tapped for low-water-cut-off; attractive standard or enclosing jacket available.

WARREN WEBSTER ANNOUNCES CHANGES IN TEXAS REPRESENTATION

Changes in their representation for the State of Texas are announced by Warren Webster & Company, Camden, N. J., steam heating equipment manufacturers.

In northern Texas, J. R. Dowdell, with office at 623 Santa Fe Bldg., Dallas, will represent the company in Dallas, Fort Worth, Waco, Amarillo, Abilene, Lubbock, Wichita Falls and neighboring towns. Mr. Dowdell succeeds the late Earl C. Waddington.

In southwest Texas, R. S. Ryden, with office at 407 Insurance Bldg., San Antonio, is now Webster representative for the cities of San Antonio, Austin, Laredo, San Angelo, Corpus Christi and Brownsville.

In southeast Texas, R. B. Johnson, Houston, Webster representative for some years, continues to serve the cities of Houston, Beaumont, Galveston and Port Arthur.

A. C. Greenawalt, working under the direction of the Webster district representative at Denver, continues to serve El Paso and surrounding territory.

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